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9 UNITED STATES DISTRICT COURT
 10 CENTRAL DISTRICT OF CALIFORNIA

11
 12 NYKO TECHNOLOGIES, INC., a **CV13-01935** Case No.
 California corporation,

DMG(MRW)

13 Plaintiff,

**COMPLAINT FOR PATENT
 INFRINGEMENT**

14 v.

15 ENERGIZER HOLDINGS, INC., a
 16 Missouri corporation, EVEREADY
 BATTERY COMPANY, INC., a
 17 Delaware Corporation, and
 18 PERFORMANCE DESIGNED
 PRODUCTS LLC, a California limited
 liability company,

DEMAND FOR JURY TRIAL

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 20 Defendants.

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1 For its complaint against Defendants Energizer Holdings, Inc.
2 (“Energizer”), Eveready Battery Company, Inc. (“EBC”) and Performance
3 Designed Products LLC (“PDP”) (collectively “Defendants”), Plaintiff NYKO
4 Technologies, Inc. (“NYKO”) alleges as follows:

5 **JURISDICTION**

- 6 1. This is an action for patent infringement pursuant to 35 U.S.C.
7 Section 271. This Court has jurisdiction pursuant to 28 U.S.C. Section 1338(a).
8 2. Venue is proper under 28 U.S.C. Section 1391(b)(2).

9 **PARTIES**

10 3. Plaintiff NYKO is a corporation existing under the laws of the State
11 of California, having a principal place of business at 1990 Westwood Boulevard,
12 Penthouse Suite, Los Angeles, California 90025.

13 4. NYKO is informed and believes, and thereon alleges that Defendant
14 Energizer is a Missouri corporation, having a principal place of business at 533
15 Maryville University Drive, St. Louis, Missouri 63141.

16 5. NYKO is informed and believes, and thereon alleges that Defendant
17 EBC is a Delaware corporation, having a principal place of business at 533
18 Maryville University Drive, St. Louis, Missouri 63141.

19 6. NYKO is informed and believes, and thereon alleges that Defendant
20 PDP is a California limited liability company, having a principal place of business
21 at 14144 Ventura Boulevard, Suite 200, Sherman Oaks, California 91423.

22 **FACTUAL BACKGROUND**

23 7. Since it was founded in 1996, NYKO has designed, manufactured
24 and marketed innovative products to enhance the digital lifestyle. NYKO’s stated
25 mission is to deliver products that solve problems and improve user experiences.
26 NYKO specializes in interactive entertainment, computing, consumer electronics,
27 portable audio, as well as online and wireless technologies. NYKO directly
28 distributes through major U.S. and Canadian retailers, and distributes through

1 intermediaries worldwide. NYKO is the owner of multiple patents in the U.S.
2 and abroad directed to its innovative products.

3 8. NYKO is the owner of U.S. Patent 8,378,630 (“the ‘630 Patent”),
4 titled “Video Game Controller Charging System Having a Docking Structure,”
5 which issued on February 19, 2013. A true and correct copy of the ‘630 Patent is
6 attached hereto as Exhibit A.

7 9. Following NYKO’s introduction into the marketplace of its video
8 game controller having a docking structure, a number of companies including
9 Energizer, EBC, PDP and others copied the concepts embodied in NYKO’s
10 product and introduced products of their own to compete with NYKO.
11 Companies such as Energizer, EBC and PDP that engaged in this behavior
12 profited greatly by not having to engage in the substantial research and
13 development NYKO engaged in to conceive, design and develop its products.

14 10. More particularly, upon information and belief, Energizer, EBC and
15 PDP have made, used, sold, imported and/or offered for sale in this District and
16 elsewhere, and have continued to do so in this District and elsewhere, without the
17 consent or authorization of NYKO, one or more video game controller charging
18 systems having a docking structure, including without limitation the Energizer®
19 Power & Play for 360 Charging System and the Energizer® Power & Play for
20 PS3 Charging System (collectively “the Infringing Products”), each of which is
21 covered by one or more claims of the ‘630 Patent.

22 11. Prior to the filing of this suit, Defendants had actual notice of the
23 ‘630 Patent, had actual notice of NYKO’s contention of infringement, and
24 continue to willfully infringe the ‘630 Patent. On February 21, 2013, NYKO
25 provided written notice to Defendants that the ‘630 Patent had issued on February
26 19, 2013 and provided Defendants a copy of the ‘630 Patent. NYKO informed
27 Defendants of NYKO’s contention that Defendants’ manufacture, use, sale,
28 importation and/or offer for sale of the Infringing Products constitutes patent

1 infringement of the '630 Patent. NYKO demanded that Defendants "immediately
2 cease all infringing activities, including, without limitation, cease all manufacture,
3 use, importation, offer for sale and sale of the Infringing Products." NYKO
4 requested that Defendants confirm in writing by February 28, 2013 that all such
5 infringing activities have ceased. Defendants, however, willfully ignored the
6 notice and continue to willfully infringe the '630 Patent to this day.

7 12. Upon information and belief, each of the Defendants was the agent,
8 co-conspirator and/or joint venturer of each of the other Defendants and that the
9 acts of each of the Defendants were in the scope of such relationship.

10 13. Upon information and belief, in doing the acts or failing to act as
11 alleged in this Complaint, each of the Defendants acted with the knowledge,
12 permission, and the consent of each of the other Defendants.

13 **FIRST CLAIM FOR RELIEF**

14 **Patent Infringement**

15 14. NYKO hereby repeats and realleges paragraphs 1 through 13
16 hereinabove as though fully set forth herein.

17 15. Energizer, EBC and PDP, by themselves and in concert with each
18 other or others, have made, used, sold, offered to sell, and/or imported, and
19 continue to make, use, sell, offer to sell, and/or import in this District and
20 elsewhere in the United States, the Infringing Products which directly infringe the
21 '630 Patent.

22 16. Energizer, EBC and PDP, who purport to be in a "partnership," by
23 themselves and in concert with each other or others continue to knowingly induce
24 infringement by others through extensive sales, advertising and promotional
25 efforts of the accused products on their websites and elsewhere. Defendants have
26 knowledge of the '630 Patent.

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1 17. Defendants promote, advertise and sell the Infringing Products with
2 the specific intent that their customers and/or end users will use the Infringing
3 Products. For example:

4 (a) Defendants promote the Infringing Products as a “conductive charger
5 with an AC Power Adapter featuring an LED indicator for charge status.”

6 (b) Defendants tout that the infringing “system includes two
7 Energizer rechargeable battery packs.”

8 (c) Defendants claim that the infringing “power accessories will help
9 gamers have a longer, more enjoyable gaming experience – a key benefit of
10 Energizer products.”

11 (d) Defendants claim that the Infringing Products “offer a power source
12 that is convenient and always available.”

13 (e) Defendants promise users, for example, that in “just 2.5 hours, the
14 Energizer Power & Play Charging System for PS3 charges up to 2 controllers”
15 that the infringing “station let’s [sic] you know when it’s charging” and instructs
16 users to “[k]eep those controllers charged.”

17 (f) Defendants provide directions on how to use the accused products to
18 charge wireless videogame controllers.

19 (g) Defendants provide customer support assistance on their respective
20 websites to assist the end users of the accused products with using the accused
21 product.

22 18. Defendants therefore specifically intend that their customers and/or
23 end users infringe one or more claims of the ‘630 Patent.

24 19. The aforesaid acts of Energizer, EBC and PDP are without right,
25 license, or authorization from NYKO.

26 20. By its aforesaid acts, Energizer, EBC and PDP have infringed the
27 ‘630 Patent, entitling NYKO to relief pursuant to 35 U.S.C. Section 271.
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1 Products, as well as any promotional literature and packaging that display or
2 promote such Infringing Products.

3 3. For patent infringement damages in an amount not less than a
4 reasonable royalty, and for those damages to be trebled, pursuant to 35 U.S.C.
5 Section 284;

6 4. For prejudgment interest;

7 5. For all of NYKO's costs of this Action, including attorneys' fees;
8 and

9 6. For such other or further relief as the Court may deem just and
10 proper.

11
12 DATED: March 18, 2013

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

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16 By 

G. Warren Bleeker

17 Attorneys for Plaintiff,
18 NYKO Technologies, Inc.

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DEMAND FOR JURY TRIAL

Plaintiff NYKO Technologies, Inc., pursuant to Federal Rule of Civil Procedure 38, hereby demands a trial by jury of all issues so triable.

DATED: March 18, 2013

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By 
G. Warren Bleeker

Attorneys for Plaintiff,
NYKO Technologies, Inc.

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EXHIBIT A



US008378630B2

(12) **United States Patent**
Navid

(10) **Patent No.:** **US 8,378,630 B2**
(45) **Date of Patent:** ***Feb. 19, 2013**

(54) **VIDEO GAME CONTROLLER CHARGING SYSTEM HAVING A DOCKING STRUCTURE**

(75) Inventor: **Amir Navid**, Sherman Oaks, CA (US)

(73) Assignee: **Nyko Technologies, Inc.**, Los Angeles, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **13/468,994**

(22) Filed: **May 10, 2012**

(65) **Prior Publication Data**

US 2012/0217929 A1 Aug. 30, 2012

Related U.S. Application Data

(63) Continuation of application No. 13/417,147, filed on Mar. 9, 2012, which is a continuation of application No. 12/044,295, filed on Mar. 7, 2008, now Pat. No. 8,143,848, which is a continuation-in-part of application No. 11/581,137, filed on Oct. 13, 2006, now abandoned.

(60) Provisional application No. 60/982,364, filed on Oct. 24, 2007.

(51) **Int. Cl.**
H02J 7/00 (2006.01)

(52) **U.S. Cl.** **320/113; 320/115**

(58) **Field of Classification Search** **320/113**
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D241,555	S	9/1976	Goldman et al.
4,288,733	A	9/1981	Bilanceri et al.
D278,426	S	4/1985	Lanci et al.
5,028,859	A	7/1991	Johnson et al.
5,059,885	A	10/1991	Weiss et al.
5,124,532	A *	6/1992	Hafey et al. 219/200
5,187,422	A	2/1993	Izenbaard et al.
5,229,701	A	7/1993	Leman et al.
5,317,691	A	5/1994	Traeger
5,327,067	A	7/1994	Scholder
D349,485	S	8/1994	Richards et al.
5,547,399	A	8/1996	Naghi et al.
5,594,314	A	1/1997	Hagiuda et al.
5,656,914	A	8/1997	Nagele et al.
5,661,391	A	8/1997	Ito et al.
5,689,171	A	11/1997	Ludewig
5,734,253	A	3/1998	Brake et al.
5,734,254	A	3/1998	Stephens
5,828,966	A	10/1998	Davis et al.
5,847,545	A	12/1998	Chen et al.
D414,180	S	9/1999	Waldner
6,018,227	A	1/2000	Kumar et al.
6,061,261	A	5/2000	Chen et al.

6,204,632	B1	3/2001	Nierescher et al.
D444,472	S	7/2001	Russell et al.
6,313,604	B1	11/2001	Chen
6,321,340	B1	11/2001	Shin et al.
6,329,786	B1	12/2001	Ono
6,362,987	B1	3/2002	Yurek et al.
6,424,525	B1	7/2002	MacLeod et al.
D461,814	S	8/2002	Felix et al.
6,459,882	B1	10/2002	Palermo et al.
D465,532	S	11/2002	Hussaini et al.
D469,439	S	1/2003	Bradley
6,560,102	B1	5/2003	Tong et al.
D476,659	S	7/2003	Ying et al.
6,614,206	B1	9/2003	Wong et al.
6,632,098	B1	10/2003	Wong et al.
6,669,513	B2	12/2003	Huang
D489,322	S	5/2004	Sawai et al.
6,752,514	B2 *	6/2004	Parker 362/183
6,765,366	B2	7/2004	Maggert et al.
6,790,062	B1	9/2004	Liao
6,811,444	B2	11/2004	Geyer
6,812,971	B2	11/2004	Terane
6,842,356	B2	1/2005	Hsu
D508,916	S	8/2005	Lee
D509,788	S	9/2005	Schlieffers et al.
D510,562	S	10/2005	Lodato et al.
6,991,483	B1	1/2006	Milan et al.
6,992,462	B1	1/2006	Hussaini et al.
D519,921	S	5/2006	Claxton et al.
D520,447	S	5/2006	Liu
7,054,177	B2	5/2006	Wu
D526,995	S	8/2006	Claxton et al.
D530,667	S	10/2006	Viduya et al.

(Continued)

FOREIGN PATENT DOCUMENTS

WO	WO 2007/078312	A1	7/2007
WO	WO 2009/038713	A1	3/2009

OTHER PUBLICATIONS

Complaint for Patent Infringement, Demand for Jury Trial, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), Apr. 5, 2012, 41 pages.

(Continued)

Primary Examiner — Arun Williams

(74) *Attorney, Agent, or Firm* — Christie, Parker & Hale, LLP

(57) **ABSTRACT**

A video game controller charging system is provided. The video game controller charging system includes a base; at least one structure on the base for providing physical support to at least one video game controller while it is being charged; and at least one DC port on the base configured to couple to and provide DC power to a power input port of the at least one video game controller. The video game controller charging system may also include a current detector, a charging status indicator, at least one docking bay, and/or an AC-to-DC converter adapted to convert externally supplied power to the DC power provided to the power input port of at least one video game controller. The base of a charging station may include a recess having at least one electrical contact and a power input for connection to a power supply.

22 Claims, 23 Drawing Sheets

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U.S. PATENT DOCUMENTS

7,140,922	B2	11/2006	Luu et al.	
7,151,357	B2	12/2006	Xian et al.	
7,254,366	B2	8/2007	Palermo et al.	
D559,484	S	1/2008	Fjellman	
D562,230	S	2/2008	Houghton	
D563,315	S	3/2008	Kingston et al.	
7,535,195	B1	5/2009	Horovitz et al.	
7,659,696	B2*	2/2010	Zeiler et al.	320/115
7,705,559	B2*	4/2010	Powell et al.	320/113
7,750,599	B2	7/2010	Kaji et al.	
7,772,802	B2	8/2010	Manico et al.	
7,775,884	B1	8/2010	McCauley	
7,816,886	B2	10/2010	Brandon, II et al.	
7,863,860	B2	1/2011	Lin	
7,942,747	B2	5/2011	Cole	
2002/0115480	A1	8/2002	Huang	
2003/0216069	A1	11/2003	Huang	
2004/0189250	A1	9/2004	Nishida	
2004/0218411	A1	11/2004	Luu et al.	
2004/0259436	A1	12/2004	Su	
2005/0007065	A1	1/2005	Freas et al.	
2005/0189914	A1	9/2005	Esses	
2006/0080476	A1	4/2006	Wang et al.	
2006/0202660	A1	9/2006	Chang	
2007/0021209	A1	1/2007	Hussaini et al.	
2007/0039755	A1*	2/2007	Mori et al.	174/480
2007/0090788	A1	4/2007	Hansford et al.	
2007/0091656	A1	4/2007	Navid et al.	
2007/0216352	A1	9/2007	Shaddle	
2007/0244471	A1	10/2007	Malackowski	
2007/0278999	A1	12/2007	Hsia	
2007/0279852	A1*	12/2007	Daniel et al.	361/683
2008/0015017	A1	1/2008	Ashida et al.	
2008/0064500	A1	3/2008	Satsukawa et al.	
2008/0164845	A1*	7/2008	Choi	320/115
2008/0180060	A1	7/2008	Odell et al.	
2009/0072782	A1	3/2009	Randall	
2009/0072784	A1	3/2009	Erickson	
2009/0096413	A1	4/2009	Partovi et al.	
2009/0224723	A1	9/2009	Tanabe	
2012/0169286	A1	7/2012	Navid	

OTHER PUBLICATIONS

Certification and Notice of Interested Parties, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), Apr. 5, 2012, 1 page.

Corporate Disclosure Statement, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), Apr. 5, 2012, 1 page.

Notice of Related Cases, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), Apr. 5, 2012, 1 page.

Report on the Filing of Determination of an Action Regarding a Patent or Trademark, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), 1 page.

Notice to Parties of Court-Directed ADR Program, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), Apr. 5, 2012, 2 pages.

Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show Cause Why Preliminary Injunction Should Not Issue Memorandum of Points and Authorities in Support thereof, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 10, 2012, 28 pages.

[Proposed] Order Granting Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show re Preliminary Injunction, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 10, 2012, 4 pages.

Notice to Counsel of Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show Cause why Preliminary Injunction Should not Issue, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 10, 2012, 3 pages.

Declaration of Amir Navid in Support of Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show

Cause re: Preliminary Injunction, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 10, 2012, 73 pages.

Declaration of Chris Arbogast in Support of Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show Cause re Preliminary Injunction, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 10, 2012, 19 pages.

Declaration of Jason C. Martone in Support of Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show Cause re Preliminary Injunction, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 10, 2012., 6 pages.

Declaration of John D. Carpenter in Support of Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show Cause re Preliminary Injunction, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 10, 2012, 5 pages.

Civil Minutes—General, Order re: Temporary Restraining Order, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 11, 2012, 1 page.

Defendant's Opposition to Ex Parte Application for TRO, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 15, 2012, 31 pages.

Declaration of Thomas Roberts in Support of Defendants' Opposition to Application for TRO and Exhibits A-C, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 15, 2012, 17 pages.

Declaration of William Otte in Support of Defendants' Opposition to Application for TRO, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 15, 2012, 3 pages.

Declaration of Steven M. Hanle in Support of Defendants' Opposition to Application for TRO with Exhibits D-V, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 15, 2012, 340 pages.

Defendants' Evidentiary Objections to Declaration of Chris Arbogast (DE 12), *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 15, 2012, 11 pages.

Notice of Errata re Defendants' Opposition to Ex Parte Application for TRO and Exhibits W-Y, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 16, 2012, 31 pages.

Reply in Support of Plaintiff's Ex Parte Application for Temporary Restraining Order and Order to Show Cause re Preliminary Injunction, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 17, 2012, 20 pages.

Supplemental Declaration of Amir Navid in Support of Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show Cause re: Preliminary Injunction and Exhibits A-E, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 17, 2012, 15 pages.

Supplemental Declaration of John D. Carpenter in Support of Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show Cause re Preliminary Injunction and Exhibits A-D, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 17, 2012, 17 pages.

Notice of Lodging of Demonstrative Exhibits in Support of Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show Cause re: Preliminary Injunction, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 17, 2012, 51 pages.

Supplemental Declaration of Jason C. Martone in Support of Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show Cause re Preliminary Injunction and Exhibit A, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 17, 2012, 7 pages.

Motion to Strike Plaintiff's Reply in Support of Ex Parte Application for TRO, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 17, 2012, 4 pages.

Performance Designed Products LLC's Notice of Interested Parties, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 17, 2012, 3 pages.

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Energizer Holdings, Inc.'s Notice of Interested Parties, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 17, 2012, 3 pages.

Performance Designed Products LLC's Federal Rule of Civil Procedure 7.1 Disclosure Statement, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 17, 2012, 3 pages.

Energizer Holdings, Inc.'s Federal Rule of Civil Procedure 7.1 Disclosure Statement, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 17, 2012, 3 pages.

Notice of Errata, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 18, 2012, 6 pages.

Supplemental Declaration of Steven M. Hanle in Support of Defendants' Opposition to Application for TRO, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 29, 2012, 7 pages.

Declaration of Jesse A. Salen in Support of Defendants' Opposition to Application for TRO, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 29, 2012, 67 pages.

Civil Minutes—General, Motion Hearing (Held and Completed), *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 29, 2012, 1 page.

Third Declaration of Amir Navid in Support of Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show Cause re: Preliminary Injunction, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 30, 2012, 11 pages.

Plaintiff's Objections to Photographic Exhibits Attached to the Declaration of Jesse A. Salen, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 30, 2012, 6 pages.

First Supplemental Declaration of Chris Arbogast in Support of Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show Cause re: Preliminary Injunction, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 30, 2012, 3 pages.

Declaration of Russell Herring in Support of Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show Cause re: Preliminary Injunction, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 30, 2012, 18 pages.

Supplemental Reply in Support of Plaintiff's Ex Parte Application for Temporary Restraining Order and Order to Show Cause re Preliminary Injunction, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 30, 2012, 6 pages.

Notice of May 30, 2012 Decision by Court of Appeals for the Federal Circuit in Support of Plaintiff's Ex Parte Application for (1) Temporary Restraining Order and (2) Order to Show Cause re: Preliminary Injunction, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 31, 2012, 22 pages.

Objection to Supplemental Filings by Plaintiff in Support of Temporary Restraining Order, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), May 31, 2012, 2 pages.

Civil Minutes—General, Order RE: Ex Parte Application for a Temporary Restraining Order, *Nyko Technologies, Inc. vs. Energizer Holdings, Inc. et al.*, CV12-03001-GAF(VBKx), Jun. 1, 2012, 13 pages.

Energizer Holdings, Inc. and Performance Designed Products LLC's Answer to Complaint for Patent Infringement, CV12-03001-GAF(VBKx), Jun. 15, 2012, 27 pages.

U.S. Appl. No. 60/749,932, filed Dec. 13, 2005, 6 pages.

International Search Report, International Application No. PCT/US 06/40118, Dated Nov. 28, 2007.

International Search Report, Transmittal and Written Opinion dated Dec. 29, 2008, Application No. PCT/US 08/81004, Nyko Technologies, Inc.

European Search Report for European Application No. 08843118.4 in the name of Nyko Technologies, Inc. European Search Report dated Oct. 22, 2010 and mailed Oct. 29, 2010 (6 pgs).

Office action for U.S. Appl. No. 13/417,147, filed Mar. 9, 2012 in the name of Amir Navid, Office action mailed Sep. 10, 2012 (28 pgs.).

Office action for U.S. Appl. No. 12/729,526, filed Mar. 23, 2010, inventor Amir Navid, and entitled "Video Game Controller Charging System", Office action mailed Sep. 13, 2012 (12 pgs.).

Morrison, David; Charging Scheme Lets Portables Climb Out of the Cradle; article; Dec. 9, 2002, Electronic Design.com; 3 pages.

Morrison, David; Charging Scheme Lets Portables Climb Out of the Cradle; article; Dec. 9, 2002, Electronic Design.com; 2 pages.

Wallace, Alan; AW Specialties & Resale; article; Alan Wallace Automotive and Specialties, 7 pages.

Casamassina, Matt; Controller Concepts: Charge Cradle—IGN; article; Oct. 4, 2005; IGN.com; 4 pages.

Kauffmann, Stéphane, Cordless Desktop LX 700; review; TomsHardware.com; Oct. 29, 2004; 4 pages.

Kauffmann, Stéphane, Saitek P3000Pad: Annual Review: Six Gamepads; review; TomsHardware.com; Oct. 24, 2003; 4 pages.

Erickson, Craig; Filing Receipt; Oct. 2, 2007; United States Patent and Trademark Office; and U.S. Appl. No. 60/994,263, filed Sep. 17, 2007, 26 pages.

Chartier, David; Charge your iPod, other devices wirelessly with Splashpad; weblog; TUAW.com; Oct. 10, 2005; 3 pages.

Electrical Safety Council; Joytech-Brand Wii Power Station; article; ESC.org; 2012; 2 pages.

Techcast Reviews; Joytech Wii Power Station; article; Techcastnetwork.com; May 2, 2007; 6 pages.

L 151-10 Charger for BA 151 Batteries; Sennheiser Electronic Corporation; article; 1 page.

Logitech Mx700 Cordless Optical Mouse Setup; journal; Logitech.com; 2002; 24 pages.

Multiple Charger Instructions, Multiple Charger, Model CHG 1600; article; 2005, Williams Sound Corp.; 4 pages.

Chappell, Jennifer; Palm Addicts: The Socket Mobile Power Pack; Journal; PalmAddictypepad.com; Feb. 2006; 3 pages.

PS3 SIXAXIS Charging Station; weblog; Instructables.com; May 22, 2007; 6 pages.

PS3 SIXAXIS Charging Station; Instructables share what you make; weblog; Instructables.com; May 22, 2007; 7 pages.

Spector, Devon "DEMENTOR"; Rage3D.com: Thrustmaster Rechargeable Wireless 2-in-1 Dual Trigger Gamepad Review; article; Rage3D.com; 2 pages.

English User Guide, NeoVoice USB, Bluetooth Wireless Headset; Journal; Bluetooth SIG, Inc., U.S.A.; 18 pages.

Thrustmaster Rechargeable Wireless Dual Trigger 2-in-1 User Manual; Journal; 2005; Guillemot Corporation S.A.; 45 pages.

English User Guide 5 Bluetooth Wireless Headset; Journal; Bluetooth SIG, Inc. U.S.A.; 15 pages.

Berardini, César A.; Xbox 360 FAQs—Xbox; article; Teambox.com; Aug. 25, 2005; 6 pages.

Nyko Technologies, Inc. vs. Energizer Holdings, Inc., Case No. CV12-03001-GAF-VBK, Performance Designed Products LLC and Energizer Holdings, Inc.'s Initial Invalidity Contentions, 622 pages (3 parts).

* cited by examiner

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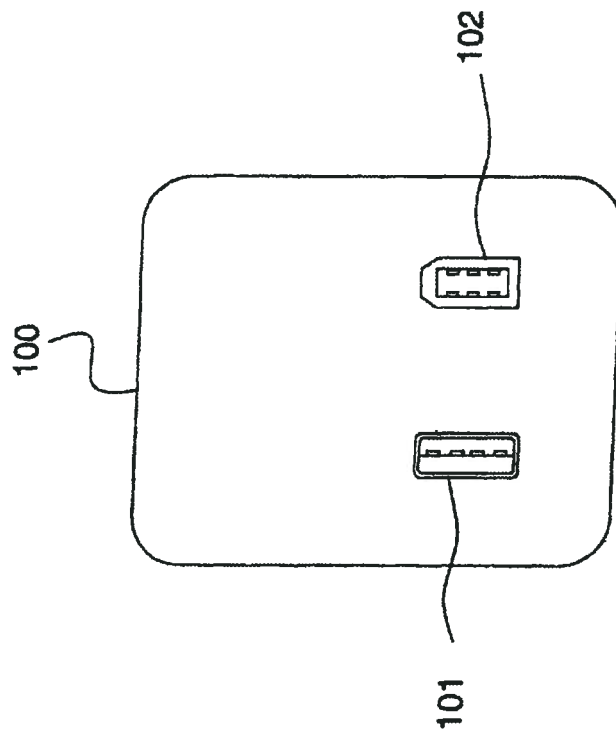


FIG. 1

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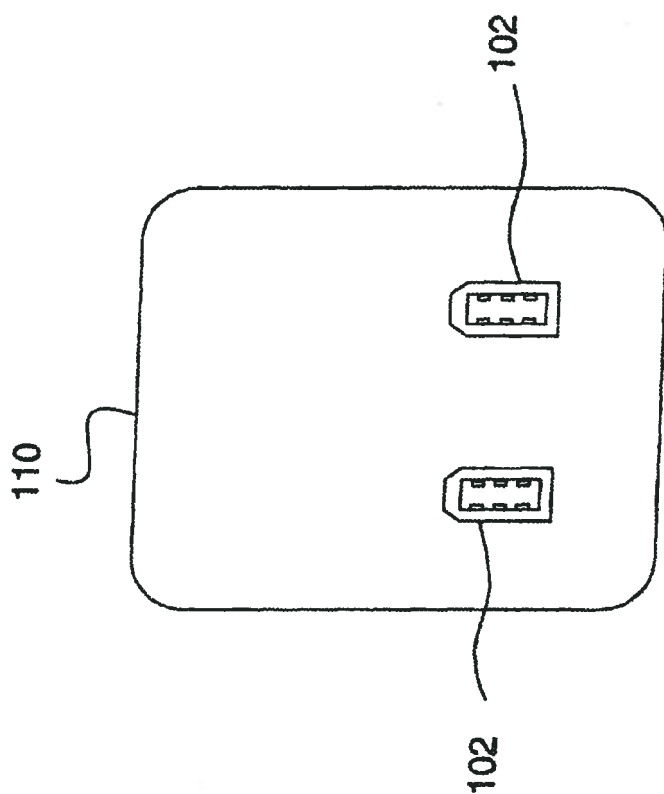


FIG. 2

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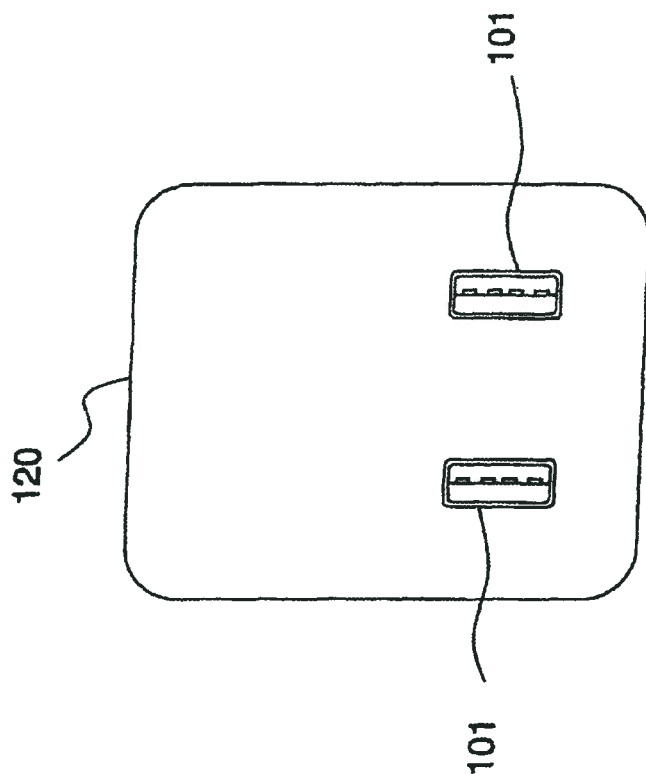


FIG. 3

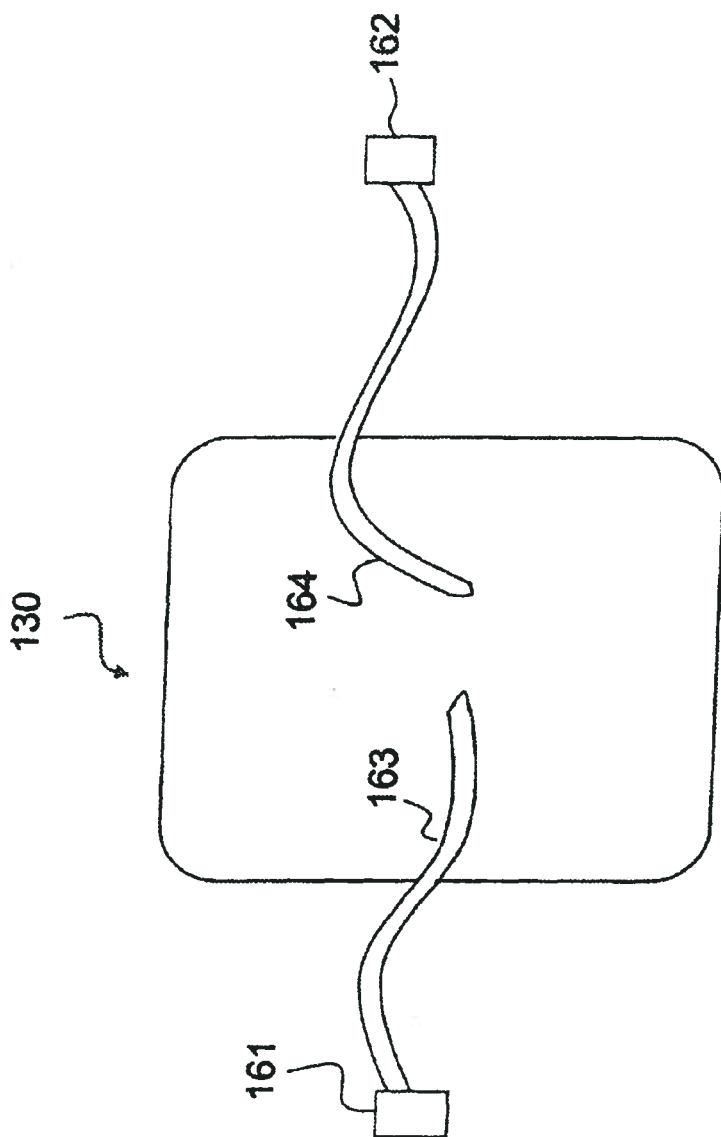


FIG. 4

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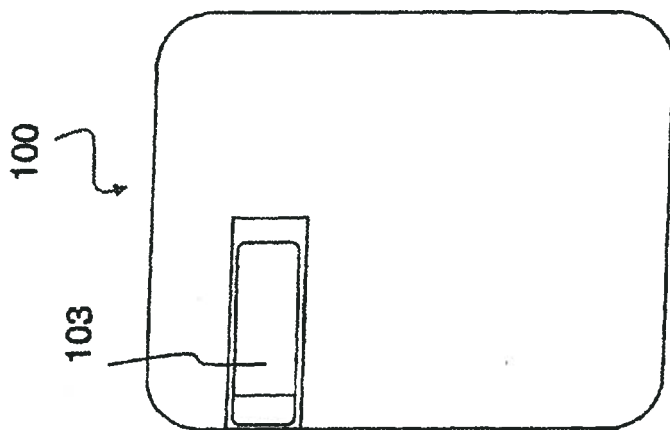


FIG. 5

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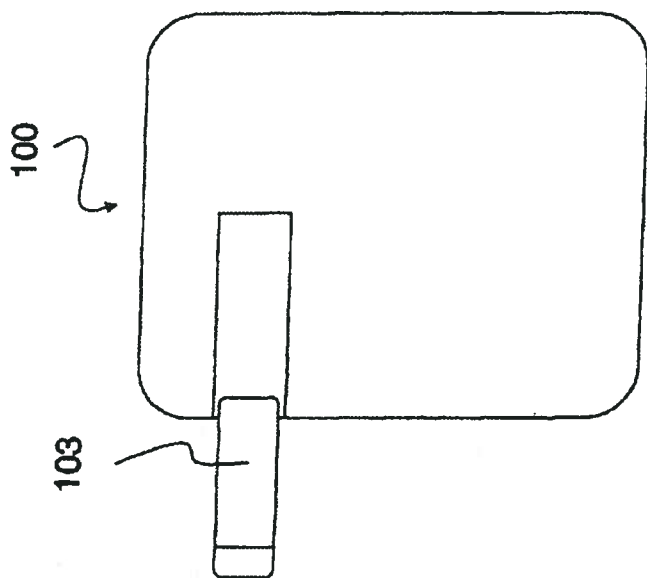


FIG. 6

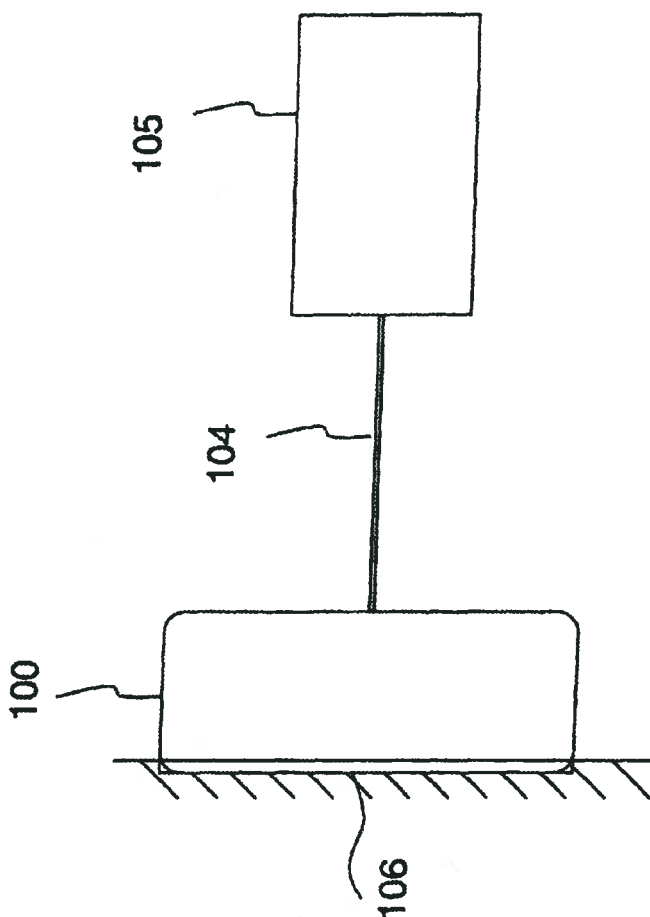


FIG. 7

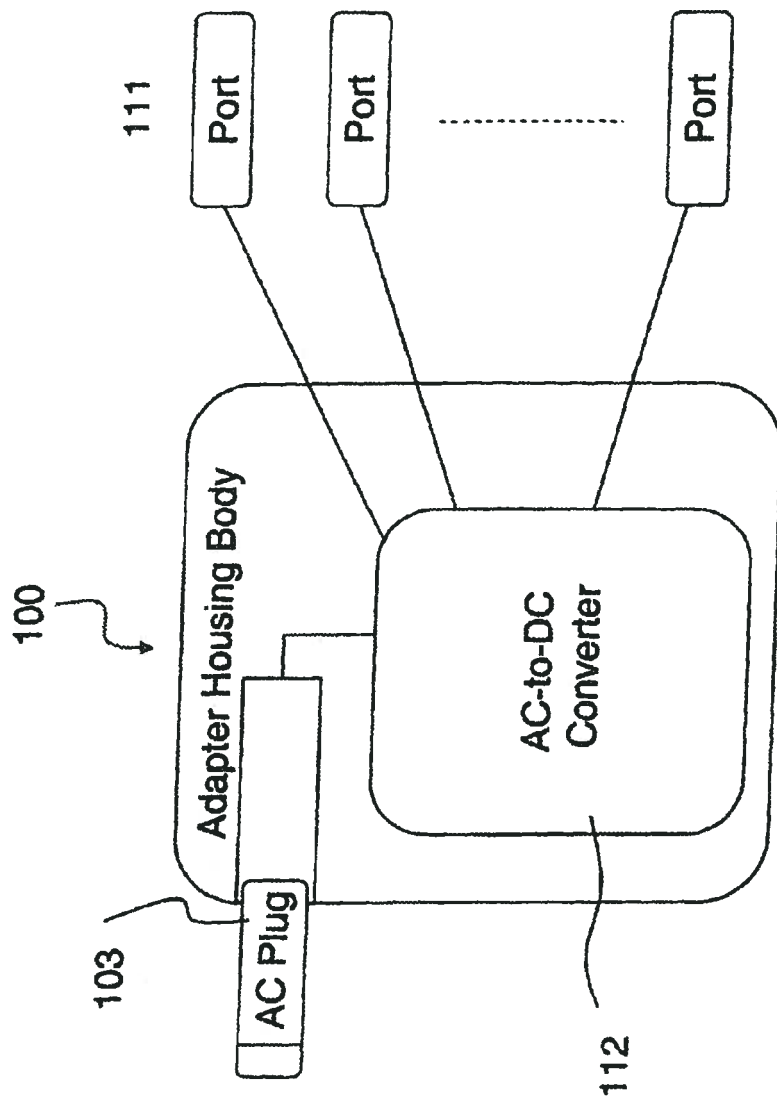


FIG. 8

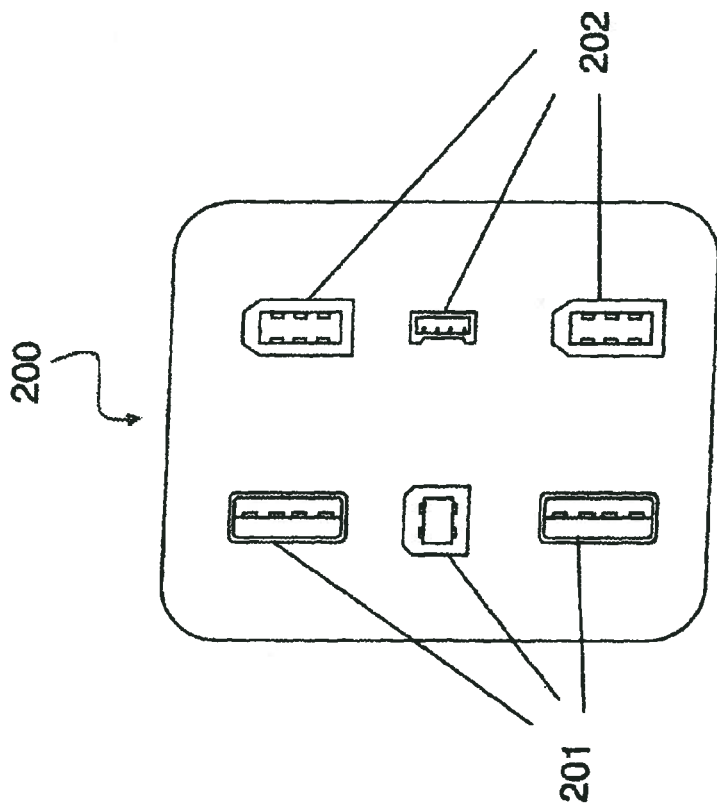


FIG. 9

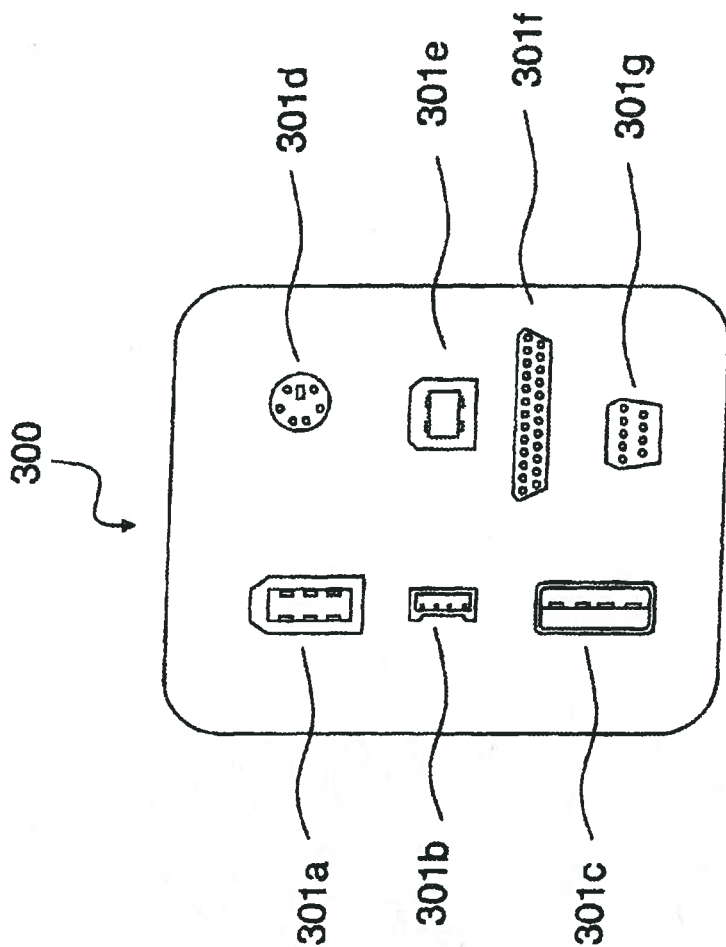


FIG. 10

FIG. 11

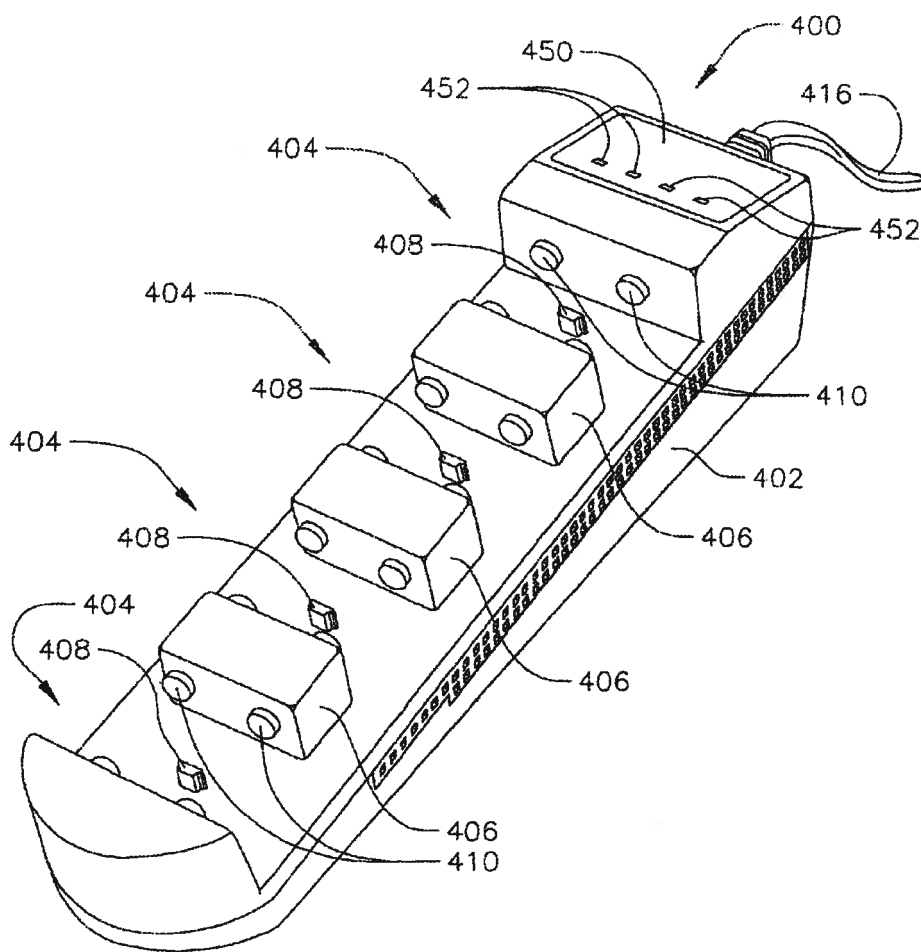


FIG. 12

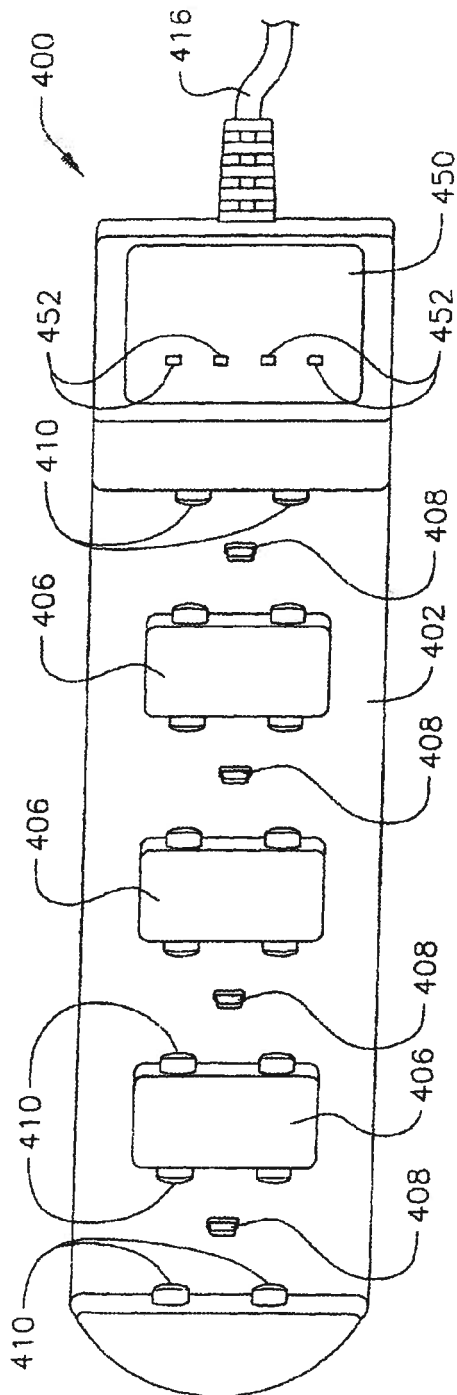


FIG. 13

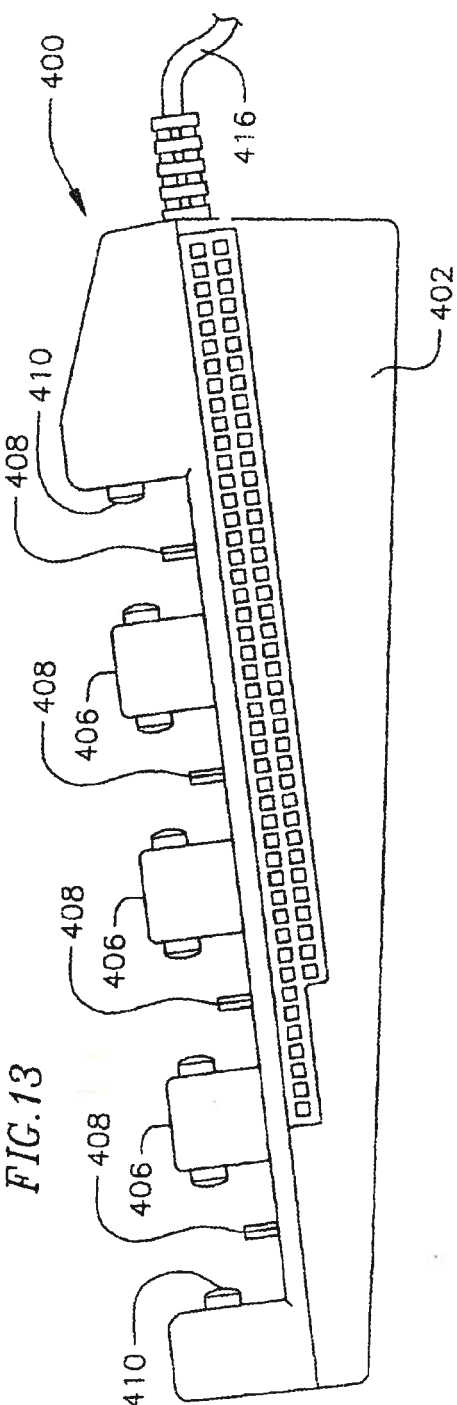
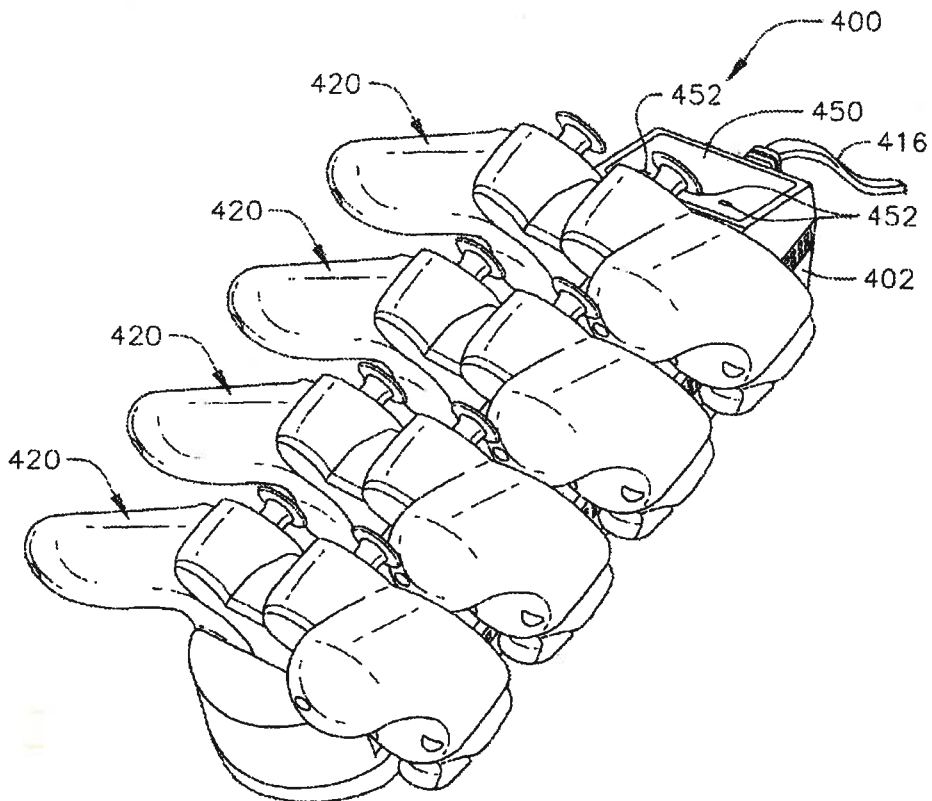


FIG. 14



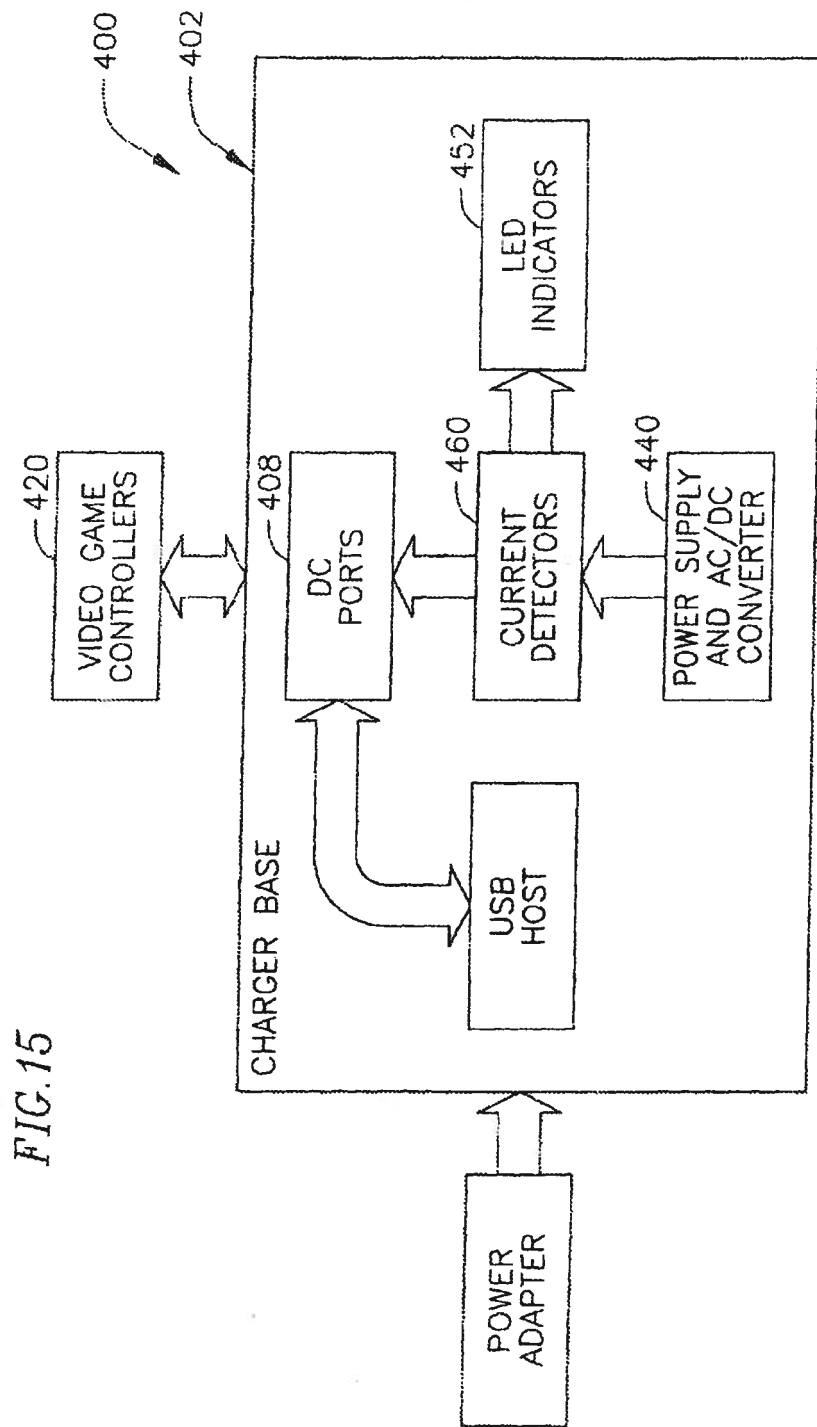


FIG. 15

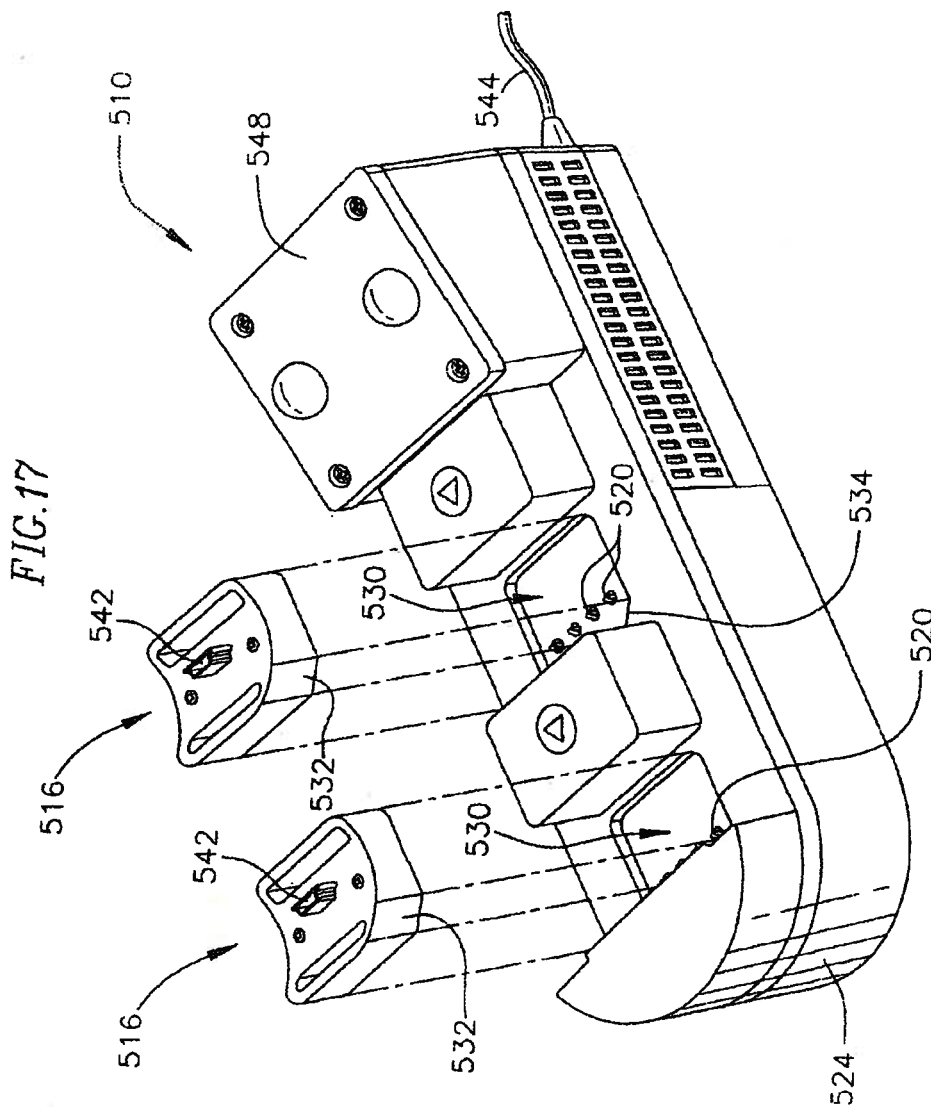
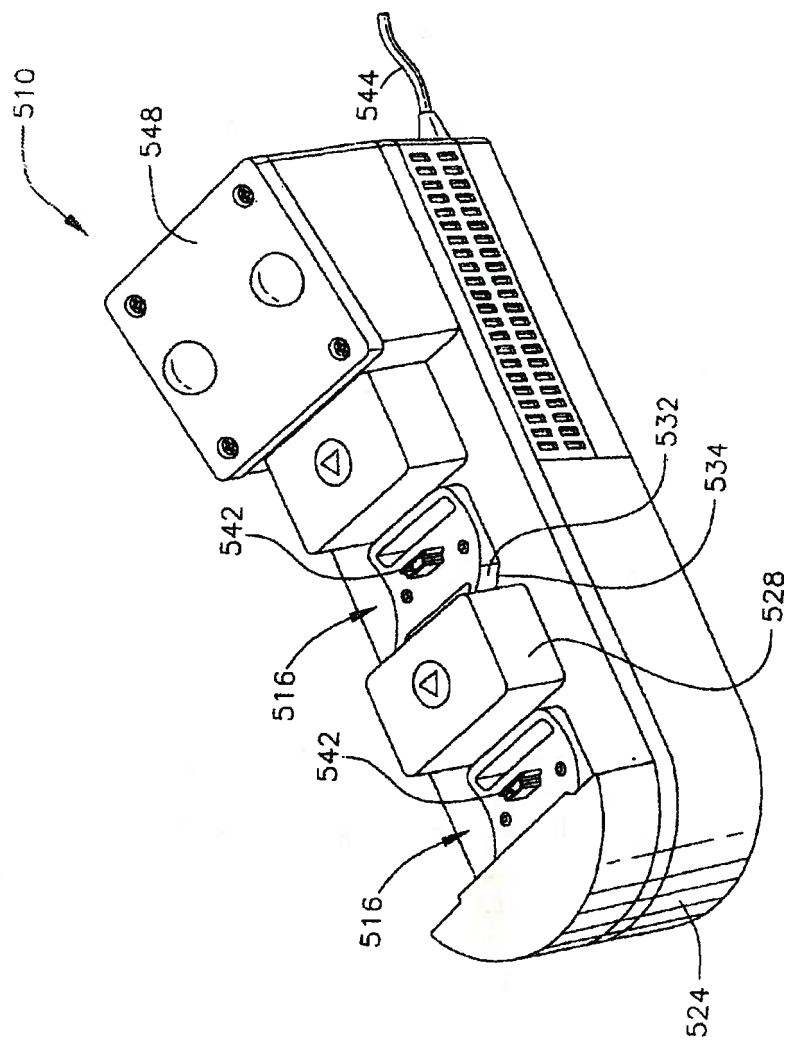


FIG. 18



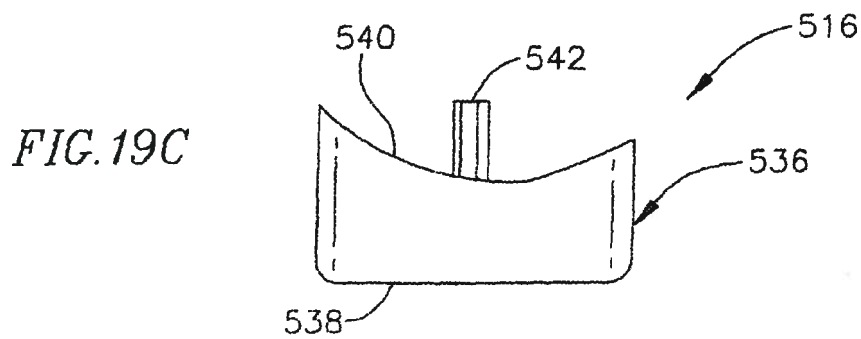
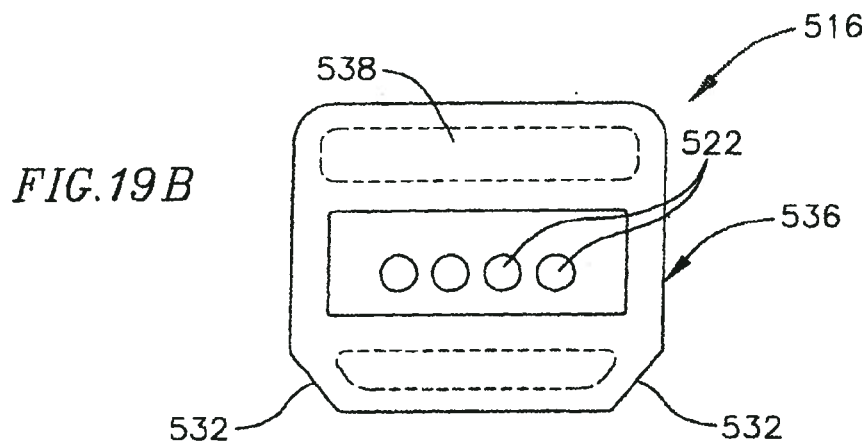
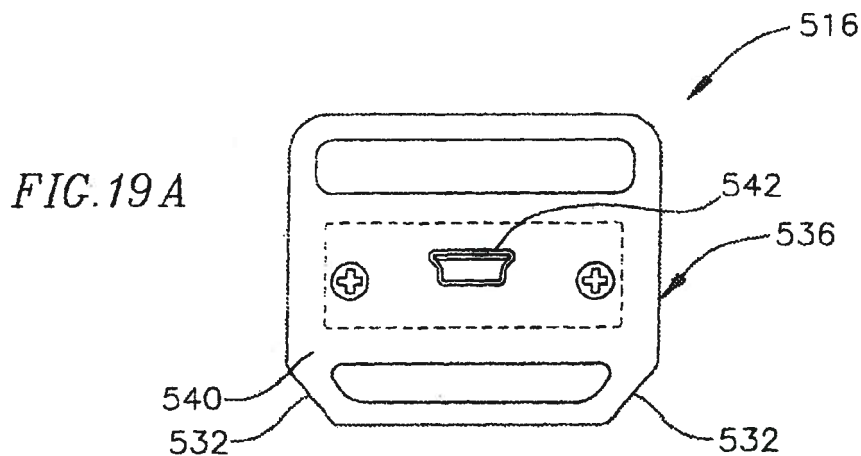
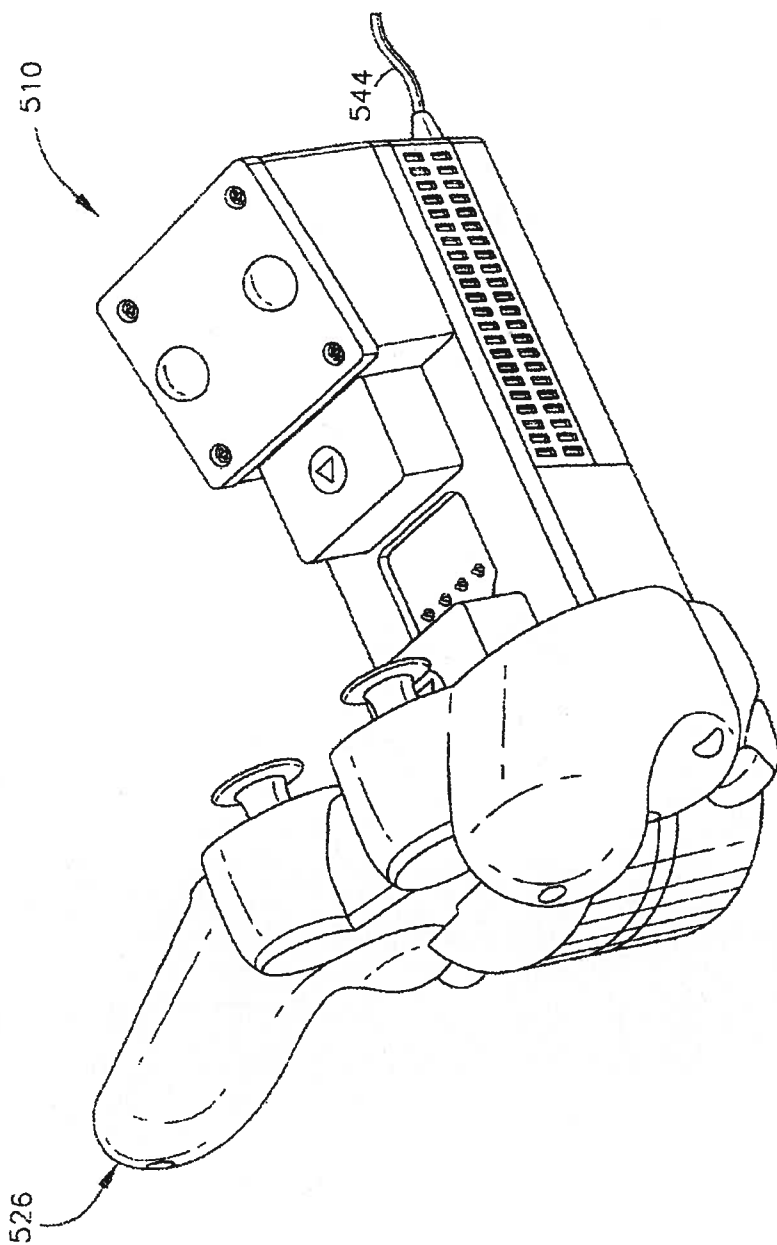
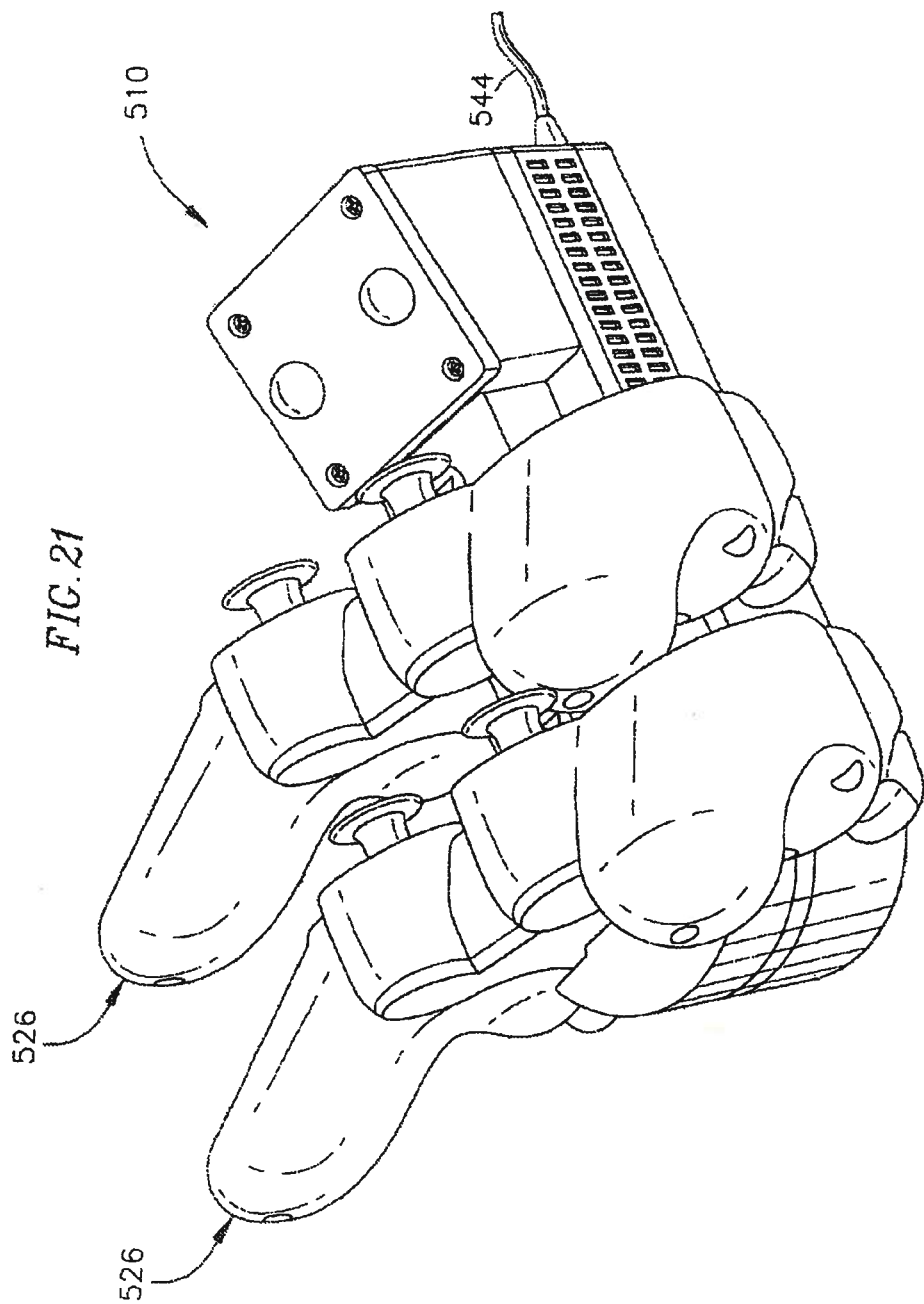


FIG. 20





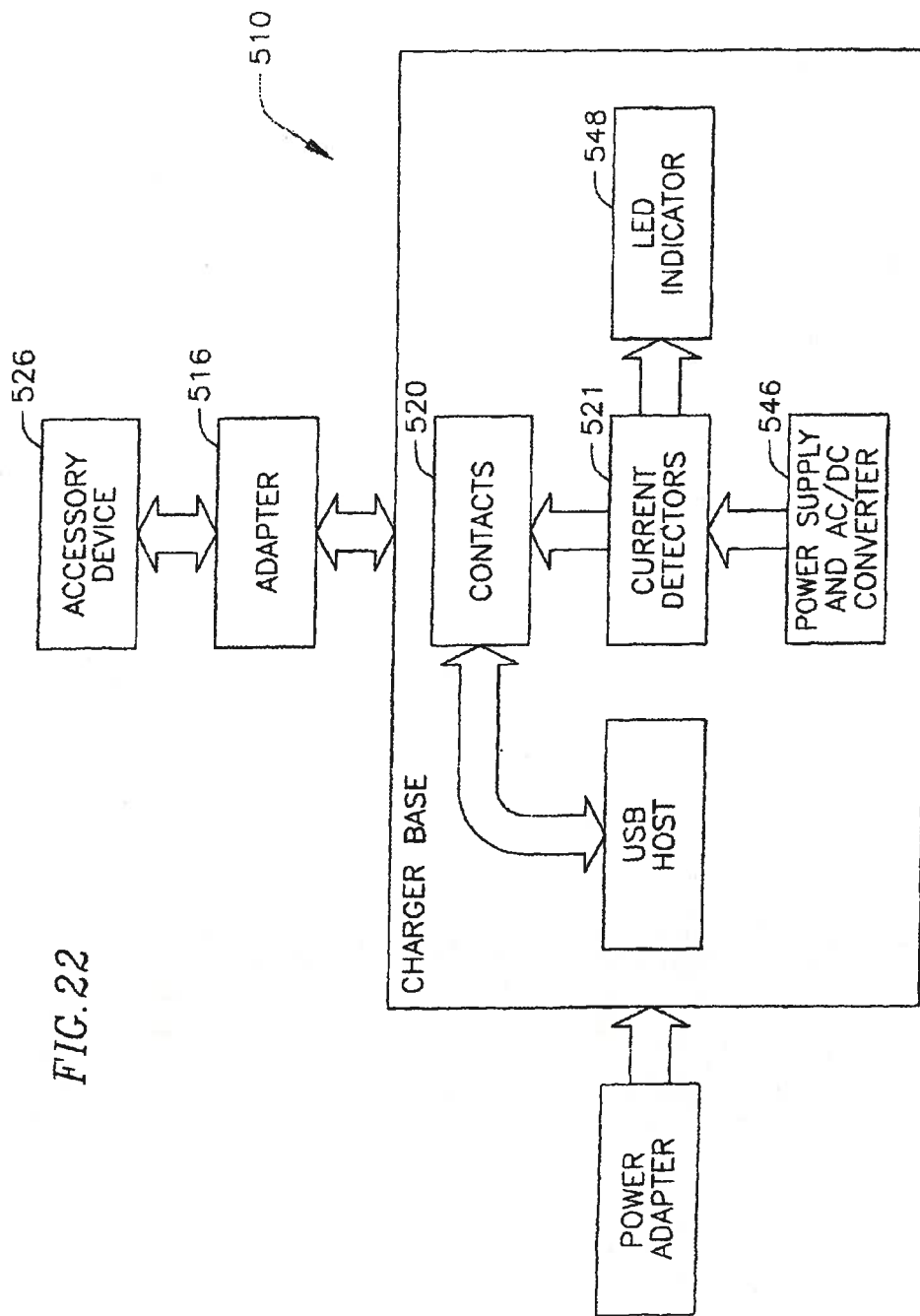
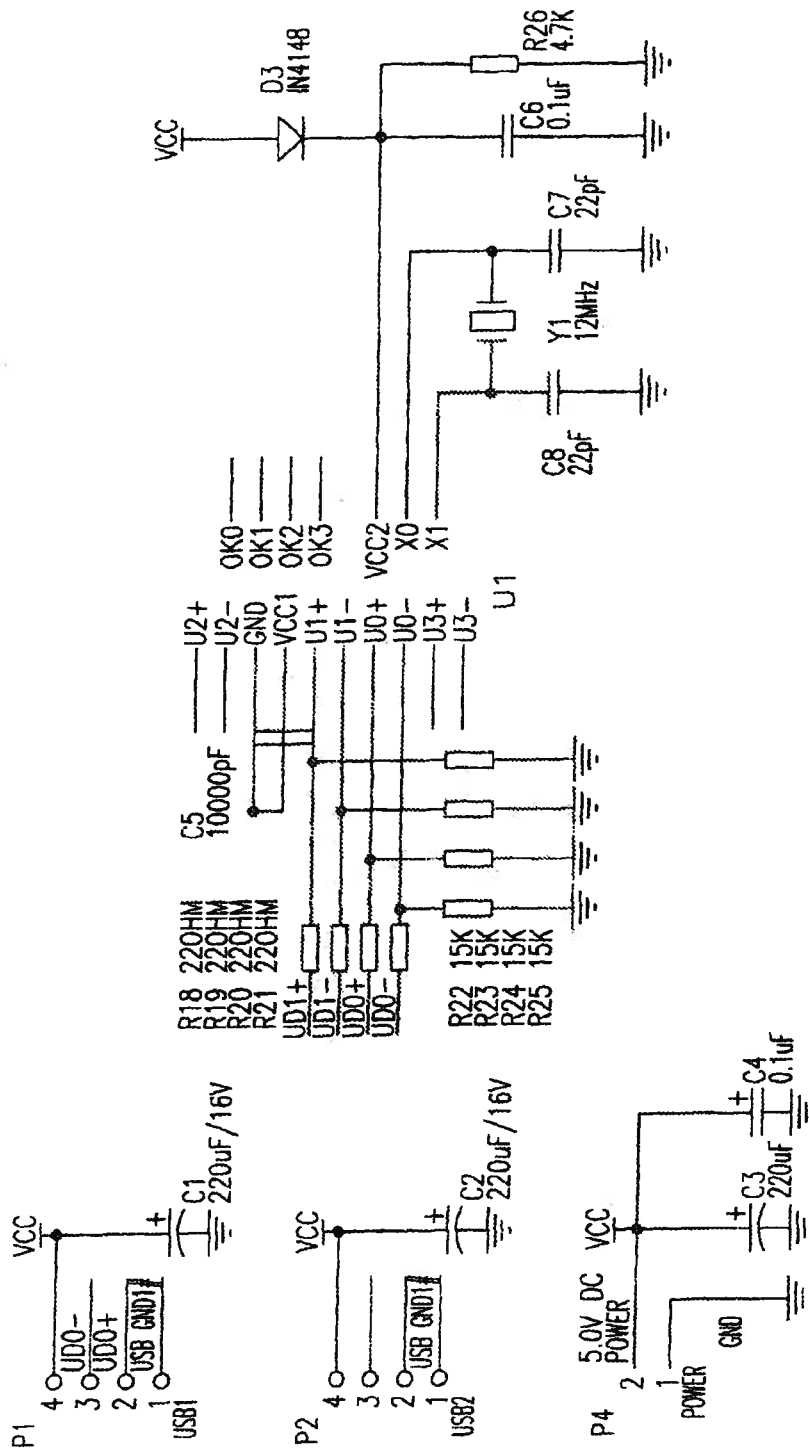


FIG. 22

FIG. 23B



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**VIDEO GAME CONTROLLER CHARGING
SYSTEM HAVING A DOCKING STRUCTURE****CROSS-REFERENCE TO RELATED
APPLICATION(S)**

This application is a continuation of pending application Ser. No. 13/417,147, filed Mar. 9, 2012, which application is a continuation of application Ser. No. 12/044,295, filed Mar. 7, 2008, issued Mar. 27, 2012 as U.S. Pat. No. 8,143,848, which is a continuation-in-part of application Ser. No. 11/581,137, filed on Oct. 13, 2006 now abandoned, the entire contents of which are expressly incorporated herein by reference.

This application also claims priority to and the benefit of U.S. Provisional Application No. 60/982,364, filed Oct. 24, 2007, the entire content of which is also incorporated herein by reference.

FIELD OF THE INVENTION

The present invention relates to charging systems for consumer electronics devices, and more particularly to charging systems for hand-held video game controllers.

BACKGROUND

Hand-held and portable electronic devices have become increasingly widespread and are used daily by many consumers. Examples of such devices include cellular phones, pagers, CD and MP3 players, digital organizers, video game units, digital cameras, and many other electronic devices. Most of these hand-held and portable devices rely on battery power while operating and require periodic recharging at an alternating current (AC) outlet. Each device requires its own power adapter, one end of which fits into the AC outlet and the other end into the device. Thus, in order to recharge multiple devices, consumers have to carry, keep track of, and operate multiple power adapters.

Consumer electronics devices ("CED"), such as personal computers, video game consoles, cell phones, and other devices, often utilize accessory devices that operate in connection with the CED. Examples of accessory devices include wireless headsets, audio speakers, and handheld controllers. These accessory devices often operate on battery power, so that they can be used without requiring a connection to a power supply. Frequent use of these battery-powered accessory devices drains the batteries and requires frequent replacement or recharging of the batteries. Frequent replacement of batteries can be expensive, and as a result, many accessory devices utilize rechargeable batteries.

Of the accessory devices, wireless handheld controllers (or video game controllers) are often used by video game players together with the corresponding video game console. Many video games allow multiple players to play concurrently, thereby requiring multiple handheld controllers.

The accessory device is connected to a charging station periodically to recharge the batteries. The charging station and the accessory device have matching plugs or ports that fit together to make a connection. If the plug on the charging station or the accessory device is broken or damaged, the accessory device can no longer be connected to the charging station. These plugs can be small and/or fragile, as the accessory device itself is often a small, compact device. These small plugs can be easily bent or broken, rendering the charging station inoperable. The user has to be careful to connect

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the plugs slowly, gently, and completely, in order to make a proper connection without damaging the parts.

SUMMARY OF THE INVENTION

In one exemplary embodiment, a video game controller charging system for charging at least one video game controller using externally supplied power includes: a base; at least one structure on the base for providing physical support to the at least one video game controller while the at least one video game controller is being charged; and at least one DC port on the base configured to couple to and provide DC power to a power input port of the at least one video game controller.

In one embodiment, the at least one DC port includes at least one male mini-USB connector.

In one embodiment, the video game controller charging system further includes a current detector electrically coupled to the at least one DC port and an indicator electrically coupled to the current detector. The indicator is configured to indicate a charging status of the video game controller charging system and may include at least one LED.

In one embodiment, the at least one structure on the base includes at least one docking bay configured to receive one of the video game controllers.

In one embodiment, the at least one structure on the base includes opposite surfaces configured to align one of the at least one video game controller such that the power input port of the video game controller couples to one of the at least one DC port. Also, the opposite surfaces may include spring-loaded locating buttons configured to align the video game controller.

In one embodiment, the at least one DC port comprises a plurality of DC ports, the at least one video game controller comprises a plurality of video game controllers, and the plurality of DC ports is configured to concurrently couple to and provide the DC power to the plurality of video game controllers.

In one embodiment, the video game controller charging system further includes an AC-to-DC converter adapted to convert the externally supplied power to the DC power provided to the power input port of the at least one video game controller. In one embodiment, the AC-to-DC converter is in the base. In another embodiment, the AC-to-DC converter is external to the base.

In one embodiment, the AC-to-DC converter is adapted to convert an AC voltage in the range of 100 V to 240 V corresponding to the externally supplied power into a DC voltage corresponding to the DC power. The DC voltage may be DC 5 V.

In another exemplary embodiment, a charging system for at least one accessory device having a power input port includes: a base; at least one male mini-USB connector supported by the base and adapted to provide DC power to the at least one accessory device; at least one docking structure configured to receive and align the at least one accessory device to couple to the at least one male mini-USB connector; and a power input for connecting to a power supply, the power input electrically coupled to the at least one male mini-USB connector.

In one embodiment, the charging system further includes an AC-to-DC converter electrically coupled between the power input and the at least one male mini-USB connector.

In one embodiment, the charging system further includes an AC-to-DC converter external to the base and electrically coupled to the power input.

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In one embodiment, the charging system further includes a current detector electrically coupled to the at least one male mini-USB connector and an indicator electrically coupled to the current detector, the indicator configured to indicate a charging status of the charging system. The indicator may include at least one LED.

In still another exemplary embodiment, a video game controller charging system for at least one video game controller having a power input port includes: a base; at least one male mini-USB connector supported by the base and adapted to provide DC power to the power input port of the at least one video game controller; and at least one docking structure having opposite surfaces configured to receive and align the at least one video game controller to couple the power input port of the at least one video game controller to the at least one male mini-USB connector.

In one embodiment, the video game controller charging system further includes an AC-to-DC converter adapted to convert an AC power received from an AC power supply to the DC power provided to the power input port of the at least one video game controller.

In another exemplary embodiment of the invention, a charging system for charging at least one accessory device having a power input port includes a base with at least one recess having at least one electrical contact. The base further includes a power input for connection to a power supply, the power input being electrically coupled to the at least one electrical contact. The charging system also includes at least one external adapter including a connector configured to couple to the power input port of one of the accessory devices, the at least one external adapter also including at least one electrical lead. The at least one recess is dimensioned to receive the at least one external adapter, the at least one electrical lead contacting the at least one electrical contact when the external adapter is received by the recess.

Another embodiment of the present invention provides a power adapter capable of supplying power from an AC outlet to a variety of hand-held devices. In exemplary embodiments of the present invention, a power adapter for recharging electronic devices is provided. The power adapter may have a Universal Serial Bus (USB) port to which a device with a USB plug can be connected for recharging. The adapter may also have a FireWire port to which a device with a FireWire plug can be connected for recharging. FireWire is a proprietary name of Apple Computer for the IEEE 1394 interface. Both ports may be operated concurrently to recharge a USB device and a FireWire device at the same time. The adapter also has an alternating current (AC) plug which is fixed or movable such that the plug extends from the rear side of the adapter. The AC plug can be fixed to the adapter body, or be slid or moved somehow into the adapter when the adapter is not in use for easy storage. When the adapter is in use, the AC plug is plugged into an AC outlet. The adapter draws power from the outlet and supplies that power to the USB and FireWire devices to enable them to recharge.

According to the present invention, in one embodiment a power adapter is provided that includes a housing body having a first side and a plurality of second sides. A plug is located on the first side and is adapted to connect to an AC outlet for providing an AC power. A first DC port is located on one of the second sides and is adapted to provide a first DC power to a first external device. A second DC port is located on one of the second sides and is adapted to provide a second DC power to a second external device. An AC-to-DC converter is located in the housing body and is adapted to convert an AC power received through the plug to the first DC power and the second DC power.

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In one embodiment, the first DC port and the second DC port are USB ports. In another embodiment, the first DC port and the second DC port are FireWire ports. In yet another embodiment, the first DC port is a USB port and the second DC port is a FireWire port.

In one embodiment, the first DC power and the second DC power have different voltages. In another embodiment, the first DC power supplies DC 5 V and the second DC power supplies DC 13 V.

In one embodiment, the power adapter also includes a plurality of DC ports, each DC port being located on one of the second sides and being adapted to provide a DC power to an external device, wherein each DC port is selected from the group consisting of USB port, FireWire port, PS/2 port, serial port, and parallel port.

In one embodiment, the AC-to-DC converter is adapted to convert an AC voltage of 120 V or 240 V corresponding to the AC power to DC voltages corresponding to the first DC power and the second DC power.

In one embodiment, the AC-to-DC converter is adapted to convert an AC voltage in the range of 100 V to 240 V corresponding to the AC power to DC voltages corresponding to the first DC power and the second DC power.

In another exemplary embodiment, a power adapter is provided that includes a housing body having a first side and a plurality of second sides. A plug is located on the first side and is adapted to connect to an AC outlet for providing an AC power. The power adapter includes a plurality of USB ports, whereas each USB port is located on one of the second sides and is adapted to provide a DC power to an external device. An AC-to-DC converter is located in the housing body and is adapted to convert an AC power received through the plug to the DC power.

In one embodiment, the power adapter also includes at least one DC port, each DC port being located on one of the second sides and adapted to provide a second DC power to an external device, wherein each DC port is selected from the group consisting of FireWire port, PS/2 port, serial port, and parallel port.

In one embodiment, the AC-to-DC converter is adapted to convert an AC voltage of 120 V or 240 V corresponding to the AC power to a DC voltage corresponding to the DC power.

In one embodiment, the AC-to-DC converter is adapted to convert an AC voltage in the range of 100 V to 240 V corresponding to the AC power to a DC voltage corresponding to the DC power.

In another exemplary embodiment, a power adapter is provided that includes a housing body having a first side and a plurality of second sides. A plug is located on the first side and is adapted to connect to an AC outlet for providing an AC power. The power adapter includes a plurality of FireWire ports, whereas each FireWire port is located on one of the second sides and is adapted to provide a DC power to an external device. An AC-to-DC converter is located in the housing body and is adapted to convert an AC power received through the plug to the DC power.

In one embodiment, the plug is fixed to the housing body. In another embodiment, the plug is movable between a first position for plugging into the AC outlet and a second position inside the housing body.

In another exemplary embodiment of the present invention, a power adapter having a plurality of USB ports of various sizes to accommodate devices with different types of USB plugs (e.g., USB plugs of type A or type B) is provided. The adapter also has a plurality of FireWire ports of various sizes to accommodate devices with different types of FireWire plugs (e.g., 4-pin or 6-pin FireWire plugs).

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In yet another exemplary embodiment of the present invention, a power adapter having a plurality of ports of various types to accommodate many different electronic devices, is provided.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a schematic front view diagram of a power adapter in an exemplary embodiment of the present invention.

FIG. 2 is a schematic front view diagram of a power adapter in another exemplary embodiment of the present invention.

FIG. 3 is a schematic front view diagram of a power adapter in yet another exemplary embodiment of the present invention.

FIG. 4 is a schematic front view diagram of a power adapter in another exemplary embodiment of the present invention.

FIG. 5 is a schematic side view diagram of the power adapter of FIG. 1 in a non-operating position.

FIG. 6 is a schematic side view diagram of the power adapter of FIG. 1 in an operating position.

FIG. 7 is a conceptual diagram of a side view of the adapter and the electronic device in an exemplary embodiment of the present invention.

FIG. 8 is a diagram showing the AC-to-DC converter in the adapter.

FIG. 9 is a schematic front view diagram of a power adapter in another exemplary embodiment of the present invention.

FIG. 10 is a schematic front view diagram of a power adapter in yet another exemplary embodiment of the present invention.

FIG. 11 is a perspective view of a video game controller charging system according to another exemplary embodiment of the present invention.

FIG. 12 is a top view of the video game controller charging system of FIG. 11.

FIG. 13 is a side view of the video game controller charging system of FIG. 11.

FIG. 14 is a perspective view of the video game controller charging system of FIG. 11 having video game controllers connected for charging.

FIG. 15 is a block diagram of the video game controller charging system of FIG. 11.

FIG. 16 is a perspective view of a charging station according to an exemplary embodiment of the invention.

FIG. 17 is a perspective view of a charging station and two adapters according to an exemplary embodiment of the invention.

FIG. 18 is a perspective view of a charging station with two adapters according to an exemplary embodiment of the invention.

FIG. 19A is a top plan view of an adapter according to an exemplary embodiment of the invention.

FIG. 19B is a bottom plan view of an adapter according to an exemplary embodiment of the invention.

FIG. 19C is a side plan view of an adapter according to an exemplary embodiment of the invention.

FIG. 20 is a perspective view of a charging station with a video game controller according to an exemplary embodiment of the invention.

FIG. 21 is a perspective view of a charging station with two video game controllers according to an exemplary embodiment of the invention.

FIG. 22 is a block diagram of a charging station and an accessory device according to an exemplary embodiment of the invention.

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FIGS. 23A-B are a circuit diagram of a charging station according to an exemplary embodiment of the invention.

DETAILED DESCRIPTION

In one embodiment, a video game controller charging system is provided. The video game controller charging system includes a base, at least one structure on the base for providing physical support to at least one video game controller while it is being charged, and at least one DC port on the base configured to couple to and provide DC power to a power input port of the at least one video game controller. In some embodiments, the video game controller charging system may include a current detector, a charging status indicator, at least one docking bay, and/or an AC-to-DC converter adapted to convert externally supplied power to the DC power provided to the power input port of at least one video game controller. In other embodiments, the base of a charging system (or "charging station") may include a recess having at least one electrical contact and a power input for connection to a power supply, the power input being electrically coupled to the at least one electrical contact. The charging station also includes an external adapter with a connector configured to couple to a power input port of the accessory device, and with at least one electrical lead. The recess is dimensioned to receive the adapter, with the at least one electrical lead contacting the at least one electrical contact when the adapter is received by the recess.

In another embodiment, a power adapter includes a housing body having a plurality of sides. In addition, the power adapter includes a plug located on one side of the housing body and adapted to connect to an alternating current (AC) outlet. Furthermore, the power adapter includes first and second direct current (DC) ports, each located on a side of the housing body and each adapted to provide a DC power to an external device. Finally, the power adapter includes an AC-to-DC converter for converting the AC power received through the plug to the DC powers supplied to external devices.

A power adapter may include one or more USB ports to which devices with USB plugs can be connected for recharging. The adapter may also include one or more FireWire ports to which devices with FireWire plugs can be connected for recharging. Both ports may be operated concurrently. The adapter also has an AC plug that is fixed or is movable between a first position (e.g., operating position) and a second position (e.g., non-operating position). By way of example, the AC plug may extend from the rear side of the adapter. The AC plug can be fixed to the adapter housing body, or it can be retracted, folded, slid, or somehow moved into the adapter housing body for easy storage when the adapter is not in use. When the adapter is in use, the AC plug is plugged into an AC outlet. In one embodiment, the adapter draws AC power from the outlet, converts it to DC powers having +5 V and +13 V, respectively, and supplies the DC powers to the USB and FireWire devices, respectively, to enable them to recharge.

In each of the disclosed embodiments, the USB, FireWire, serial, parallel, and generally DC ports, may be either male or female. That is, the DC charging ports may be female and accept a plug, or may itself be a port plug for plugging into a port in an external device.

FIG. 1 is a schematic front view diagram of a power adapter 100 in an exemplary embodiment of the present invention. The power adapter 100 has a USB port 101 to which a device with a USB plug can be connected for recharging. The power adapter 100 also has a FireWire port 102 to which a device with a FireWire plug can be connected for recharging. The power adapter 100 includes an AC-to-DC power converter for

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providing +5 V and +13 V, respectively. The power adapter 100 may take an input of 100 V to 240 V (w/ frequencies of 50 Hz or 60 Hz) AC power and/or any other standard AC outlet voltage to enable the power adapter 100 to be used in a number of different countries throughout the world.

In the United States, AC voltage is standardized at 120 V, but in practice voltages range from 105 V to 130 V. In other parts of the world, voltages range from 100 V to 240 V. The frequencies vary across the world as well. In the U.S., 60 Hz is the standard. However, in other parts of the world, AC voltage is supplied at 50 Hz or 60 Hz. The AC-to-DC power converters in the power adapter may be adapted to convert AC voltages from a particular standard to a DC voltage required of the DC ports in the power adapter.

The USB port 101 is capable of delivering DC power having +5 V to a connected USB device. The FireWire port 101 is capable of delivering DC power having +13 V to a connected FireWire device. Ports 101, 102 may be operated concurrently to recharge a USB device and a FireWire device at the same time. While FIG. 1 illustrates that ports 101, 102 are located at the front surface of the power adapter 100, the ports may be located at any suitable location on the front, rear, side, top, or bottom surfaces or sides of the adapter 100.

FIG. 2 is a schematic front view diagram of a power adapter 110 in another exemplary embodiment of the present invention. The power adapter 110 has two FireWire ports 102 to which a device with a FireWire plug can be connected for recharging. The FireWire ports 102 may be of a different type and may accept 4-pin or 6-pin FireWire connections. Each FireWire port 102 is capable of delivering DC power having +13 V to a connected FireWire device. Ports 102 may be operated concurrently to recharge FireWire devices at the same time.

FIG. 3 is a schematic front view diagram of a power adapter 120 in yet another exemplary embodiment of the present invention. The power adapter 120 has two USB ports 101 to which a device with a USB plug can be connected for recharging. The USB ports 101 may be of a different type and may accept type A or type B connections. Each USB port 101 is capable of delivering DC power having +5 V to a connected USB device. Ports 101 may be operated concurrently to recharge USB devices at the same time.

FIG. 4 is a schematic front view diagram of a power adapter 130 in another exemplary embodiment of the present invention. Power adapter 130 has a USB port 161 and a FireWire port 162 that are connected to lines 163. The lines extend the ports so that USB and FireWire plugs may be inserted into the extended ports without having to reach the power adapter 130 plugged into an AC outlet. Although a USB and FireWire port are shown in FIG. 4, this embodiment includes all possible combinations of ports, the combination being formed from USB, FireWire, serial, parallel ports, and other DC charging ports, in various combinations.

FIG. 5 is a schematic side view diagram of the power adapter 100 of FIG. 1 in its non-operating position. The power adapters 110 and 120 of FIGS. 2 and 3 have substantially the same structure in one embodiment. As shown in FIG. 5, the power adapter 100 may have an AC plug 103 that is movable such that it extends from the rear side of the adapter 100. In the non-operating position, when the adapter 100 is not in use, the AC plug 103 is slid, moved, or otherwise positioned into the adapter 100 so that the plug 103 does not extend out from the adapter 100. This non-operating position allows for easy storage of the adapter 100. In other embodiments, the plug may be fixed to the adapter housing body and is not movable.

FIG. 6 is a schematic side view diagram of the power adapter 100 of FIG. 1 in its operating position. As shown in

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FIG. 6, when the power adapter 100 is in use, the AC plug 103 is slid, moved, or otherwise positioned outside of the housing of the adapter 100, so that the plug 103 extends out from the adapter 100 in its operating position. In this position the AC plug 103 may be plugged into an AC outlet so that the adapter 100 can draw AC power from the outlet, convert it to DC powers having +5V and +13V, respectively, and supply the DC powers to hand-held and portable electronic devices.

While the AC plug 103 of the power adapter 100 illustrated in FIGS. 5 and 6 appears as a pair of parallel flat bars that are commonly used in the United States and some other countries, for international use, the AC plug may have a shape of a pair of cylindrical bars used in many Asian and European countries, and/or any other suitable shape. Furthermore, a single power adapter may include a number of different types of AC plugs for use in many different countries having different AC plug types/AC power voltages.

FIG. 7 is a conceptual diagram of a side view of an adapter 100 and an electronic device 105 in an exemplary embodiment of the present invention. The adapter 100 is plugged into an AC outlet 106. A device 105 is connected to the adapter 100 by a cable 104. The cable 104 plugs into the adapter 100 through a plug 101 or 102, shown in FIG. 1. The adapter 100 draws power from the AC outlet 106 and delivers the power to the device 105 through the cable 104.

FIG. 8 is a diagram showing the AC-to-DC converter in the adapter 100. The AC-to-DC converter 112 is located in the housing body of the adapter 100. The AC-to-DC converter 112 receives an AC power from the AC plug 103 via an AC outlet 106 and provides DC power to a plurality of DC ports 111. The AC-to-DC converter 112 may be composed of multiple AC-to-DC converters in order to provide different DC power voltages to the DC ports 111. For example, in FIG. 1, the AC-to-DC converter would receive AC power from the AC plug 103 and provide DC 5 V to one DC port (e.g., USB port 101) and DC 13 V to another DC port (e.g., FireWire port 102).

FIG. 9 is a schematic front view diagram of a power adapter 200 in another exemplary embodiment of the present invention. The adapter 200 has a plurality of USB ports 201 to which a plurality of devices with USB plugs can be connected for recharging. The USB ports 201 may be of various sizes to accommodate devices having different types of USB plugs (e.g., USB plugs of type A or type B). The adapter 200 also has a plurality of FireWire ports 202 to which a plurality of devices with FireWire plugs can be connected for recharging. The FireWire ports 202 may likewise be of various sizes to accommodate devices having different types of FireWire plugs (e.g., 6-pin or 4-pin FireWire plugs). The ports 201 and 202 may be located at any suitable location on the front, rear, side, top, or bottom surfaces or sides of the adapter 200.

FIG. 10 is a schematic front view diagram of a power adapter 300 in yet another exemplary embodiment of the present invention. The adapter 300 has a plurality of ports 301a, 301b, 301c, 301d, 301e, 301f, 301g having different cross-sectional shapes to which a plurality of devices can be connected for recharging. The ports 301 may be any of a wide variety of ports used by popular electronic devices, such as USB, FireWire, PS/2, serial ports, parallel ports, and others. The ports 301a-301g may be located at any suitable location, on the front, rear, side, top, or bottom surfaces or sides of the adapter 300. The ports of the power adapter 300 may have cross-sections that are different from the cross-sections of the ports 301a-301g that are shown for illustrative purposes only.

Similar to the power adapter 100 of FIG. 1, the power adapters 200 and 300 of FIGS. 9 and 10 each have one or more AC plugs for plugging to corresponding AC outlets to receive

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AC power therefrom. The AC plugs may have different shapes to be compatible with AC outlets used in various different countries of the world.

Further, similar to the power adapter 100, the power adapters 200 and 300 of FIGS. 9 and 10 may have capabilities to convert a range of different AC voltages that are used throughout the world. By way of example, the power adapters 200 and 300 may be able to convert from AC power having a voltage range of 100V to 240V (and at frequencies 50 Hz or 60 Hz) to DC power having +5 V and +13 V and/or any other desirable voltages.

FIGS. 11, 12, and 13 are perspective, top, and side views, respectively, of a video game controller charging system 400 according to another exemplary embodiment of the present invention. FIG. 14 is a perspective view of the video game controller charging system 400 having video game controllers 420 connected for charging. In one embodiment, the charging system 400 converts AC power from an AC power supply to DC power and supplying the DC power having a desired DC voltage to a connected CED accessory device, such as one of the video game controllers 420. In such an embodiment, the video game controller charging system 400 includes an AC-to-DC converter for converting AC power to DC power. In other embodiments, the video game controller charging system 400 may receive DC power from an external power source. In such cases, the external DC power may be provided by an external AC-to-DC converter that receives power from an AC outlet, and converts the received AC power to DC power.

The video game controller charging system 400 includes a base 402 and one or more docking bays 404, wherein each docking bay 404 is configured to receive a video game controller 420. The charging system 400 also includes one or more partitions 406 separating the docking bays 404. The charging system 400 further includes a DC port 408 within each of the docking bays 404 that is configured to electrically couple to one of the video game controllers 420 and deliver DC power to the coupled video game controller 420.

The DC ports 408 of the video game controller charging system 400 are configured to connect to a power input port of the video game controller 420 to be charged. In the present embodiment, the DC ports 408 are male mini-USB (universal serial bus) connectors adapted to connect to a female mini-USB connector on a video game controller for a video game console, such as the PlayStation3®. Alternatively, the DC ports 408 may be any electrical connectors suitable for coupling to a video game controller for another video game console, or for any other consumer electronics device to be charged, such as an MP3 player or accessory device.

In the present embodiment of the video game controller charging system 400, the partitions 406 include locators 410 for aligning the video game controller to the DC port 408. There are locators 410 on each of the two surfaces of the partitions 406, as well as the two surfaces of the base 402, which face the DC ports 408. There may be two locators 410 on each surface described, i.e., four locators 410 adjacent each video game controller 420. Each pair of opposite surfaces, a portion of the base 402, a corresponding docking bay 404, and/or the locators 410 may comprise a structure for providing physical support to one of the video game controllers 420 during charging. While the locators 410 in the illustrated embodiment of FIG. 11 are button-shaped, the shape of the locators 410 is not limited thereto. Also, the locators 410 may be spring-loaded in order to facilitate aligning and maintaining a required position of the video game controller 420 for coupling to the corresponding DC port 408. In other embodiments, the locators 410 may not be spring-loaded and

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the video game controller 420 may be aligned by the locators 410 through any other suitable method or mechanism, such as a pressure fit.

In use, the DC ports 408 are connected to power input ports of the video game controllers 420 to be charged, as shown in FIG. 14. When one or more video game controllers 420 need to be recharged, connecting the video game controllers 420 to the charging system 400 is as easy as inserting each of the video game controllers 420 into one of the docking bays 404. As described above, the locators 410 aid in aligning the video game controller 420 into the docking bay 404 such that the power input port of the video game controller 420 slides down onto and connects to the DC port 408. The charging system 400 is connected to a power supply through its own power input (either AC power which is converted to DC power using an internal AC-to-DC converter or externally provided DC power). The charging system 400 then provides power to the video game controller 420 to recharge the batteries of the video game controller 420.

While the embodiment described above uses a vertical orientation, with each of the video game controllers 420 being dropped from above into the docking bays 404, other orientations may be used as well. In one alternative embodiment, for example, the video game controllers 420 may be received horizontally into the docking bays 404, and electrically coupled to DC ports 408 having a horizontal orientation instead of the vertical orientation shown in FIGS. 11-14.

The present embodiment of the video game controller charging system 400 can charge up to four video game controllers 420 concurrently, or it can charge one at a time. Alternative embodiments of the charging system 400, however, may be configured to charge more than four video game controllers 420 concurrently. The power supply for the charging system 400 may be a power cord 416 that has a plug for connecting to an AC power supply or a DC power supply. In one embodiment, the charging system 400 also includes an AC-to-DC converter 440 (see FIG. 15) electrically coupled between the power cord 416 and the DC ports 408 for converting AC power to DC power having +5 V or any DC voltage suitable for delivery to the video game controller 420. The AC-to-DC converter 440 may be in the base 402 or external to the base 402. The power cord 416 may be removably connected to the base 402, or may be fixedly coupled to the base 402. In an alternative embodiment, the power input may be a USB port that connects to a CED (e.g., a video game console) to obtain DC power from the CED. The charging system 400 provides this DC power to the DC ports 408 for delivery to the video game controllers 420. In other embodiments, DC power may be provided as input to the charging system 400, where the DC power may be provided by an external AC-to-DC converter. In such embodiments, the power input may be DC power converted from AC power from a wall outlet and converted to DC power using the external AC-to-DC converter.

The video game controller charging system 400 may also include an indicator panel 450 that indicates a status of the charging system 400. In the present embodiment, the indicator panel 450 includes four LED assemblies 452. Each of the four LED assemblies 452 corresponds with one of the four DC ports 408, so as to indicate the charging status of the video game controller 420 being charged at the respective DC port 408. Each of the LED assemblies 452 includes at least two LEDs having different colors. For example, each of the LED assemblies 452 in the present embodiment includes a red LED and a green LED. While the respective video game controller 420 is being charged, the red LED is emitted to indicate that the video game controller 420, or more specifi-

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cally, the battery inside the video game controller 420, is currently being charged. When the respective video game controller 420 is finished charging, the green LED is emitted to indicate that the charging has been completed. In another embodiment, the green LED may be emitted to indicate that the video game controller is being charged, while the red LED is emitted to indicate that the charging has been completed. In alternative embodiments, each of the LED assemblies 452 may include different colors of LEDs and/or different numbers of LEDs (e.g., three LEDs) to indicate respective charging status.

In another alternative embodiment, each of the LED assemblies 452 may include a single LED and may illuminate with a first color (e.g., red) to indicate that the charging system 400 is currently charging a video game controller 420. Another LED assembly 452 may illuminate with a second color (e.g., green) to indicate that the charging system 400 has completed charging. The LED assemblies may be electrically coupled to a current detector 460 (see FIG. 15) which provides the signals to illuminate the LEDs. In one embodiment, the charging system 400 may stop providing power to the video game controller 420 when the video game controller's internal battery is completely charged.

FIG. 15 is a block diagram showing some of the above-described components of the video game controller charging system 400 in schematic form. As can be seen in FIG. 15, the charging system 400 includes DC ports 408, each of which is configured to be electrically coupled with a video game controller 420. Through the DC ports 408, the charging system 400 is capable of supplying the power received from a power adapter or a power supply to the video game controllers 420 for charging.

In one embodiment, the base 402 includes an AC-to-DC converter 440 for converting input AC power to DC power for charging the video game controller 420. In other embodiments, the charging system 400 may be provided with an external AC/DC converter, DC power via a mini-USB port, or any other suitable DC power supply. The charging system 400 may include a USB host used to provide DC power via a mini-USB port.

In one embodiment, the video game controller charging system 400 includes one or more current detectors 460 for detecting the amount of current being provided by the power supply to the video game controllers 420 through the DC ports 408. If sufficient current, i.e. a predetermined amount of current, is detected by one of the current detectors 460, the corresponding LED (e.g., a red LED) is emitted to indicate that the video game controller 420 in the corresponding docking bay 404 is being charged. Then, when the charging has been completed, less current is detected because the battery in the accessory device is already substantially fully charged. In this case, another LED (e.g., a green LED) is emitted to indicate that charging has been completed.

Another exemplary embodiment of the invention, shown in FIGS. 16-23, relates to a charging station for a consumer electronics device (CED), and more particularly, to a charging station for one or more hand-held controllers for a video game console. A charging station 510 according to an exemplary embodiment of the invention is shown in FIG. 16. The charging station 510 includes two docking bays 512, 514 for two accessory devices, which in one embodiment are hand-held controllers for a video game console. The docking bays 512, 514 are dimensioned to accept adapters 516 (see FIG. 17). Electrical contacts 520 in the docking bays 512, 514 make contact with electrical leads 522 on the adapters 516 (see FIG. 19B) to provide an electrical connection through which power can be transmitted. The adapters 516 are elec-

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trically coupled to the power input port on the hand-held controllers. In one embodiment, the adapters 516 drop-fit easily into the docking bays 512, 514, thus providing a fast and easy connection of the hand-held controllers to the charging station 510.

As shown in FIG. 16, the charging station 510 includes a base 524 with two docking bays 512, 514. The docking bays 512, 514 are each dimensioned to accept a hand-held controller 526 (see FIGS. 20, 21). The two docking bays 512, 514 are separated by a partition 528 positioned between them. Each of the docking bays 512, 514 includes a recess 530 at the bottom of the docking bay. The recess 530 has four electrical contacts 520 positioned in the recess 530. In other embodiments, the recess may include more than four or less than four electrical contacts. These contacts 520 are shown positioned in a linear arrangement in the recess 530, but they could be positioned in any suitable arrangement.

The recesses 530 are dimensioned to receive an adapter 516 into the recess 530. As shown in FIG. 17, the adapters 516 can be dropped vertically into the docking bays 512, 514 and into the recesses 530. When the adapters 516 are placed into the recesses 530, electrical leads 522 (see FIG. 19B) on the bottom side 538 of the adapters 516 contact the electrical contacts 520 in the recesses 530. The electrical leads 522 on the adapter 516 thus make an electrical connection with the electrical contacts 520 in the recess 530. The electrical leads 522 on the adapter 516 match the arrangement of the electrical contacts 520 such that each electrical lead 522 makes physical contact with an electrical contact 520 when the adapter 516 is placed in the recess 530. In one embodiment, as will be described later, the electrical contacts 520 are spring loaded so as to make sufficient contacts with the electrical leads 522.

In other embodiments, the adapters 516 and the docking bays 512, 514 have matching shapes, such as, for example, a molded male and female matching shape, which is not limited to the recess 530 described above. The docking bays 512, 514 and the adapters 516 can have any suitable shapes that allow the electrical contacts 520 of the docking bays 512, 514 to make contact with the electrical leads 522 of the adapters 516. Thus, many molded configurations, including ridges, grooves, and other shapes, can be used to enable the docking bays 512, 514 to receive the adapters 516. These examples are illustrative only, and not limiting.

As shown in FIG. 18, in one embodiment, the adapters 516 and recesses 530 are shaped such that the adapter 516 can only be placed into the recess 530 in one orientation. In the embodiment shown, the adapter 516 includes at least one angled edge 532, and the recess 530 includes a matching angled corner 534. This geometry ensures that the adapter 516 will be placed in the recess 530 in the proper orientation, so that the electrical contacts 520 meet the electrical leads 522. Other geometric configurations or features could be used to accomplish this function, such as matching prongs and recesses, or other types of shaped edges. Additionally, this feature is optional, as the adapter 516 could be made to fit into the recess 530 in multiple orientations.

As shown in FIGS. 19A-19C, the adapter 516 includes a body 536 with the angled edge 532. The electrical leads 522 are located on a bottom side 538 of the body 536. The top side 540 of the body 536 includes a connector 542 that is configured to connect to the power input port of the accessory device to be charged. In one embodiment, the connector 542 is a male mini-USB (universal serial bus) connector adapted to connect to a female mini-USB connector on a hand-held controller for a video game console, such as the PlayStation3®.

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In use, the connector 542 on the adapter 516 is connected to the power input port of the accessory device to be charged, such as the hand-held controller 526 shown in FIGS. 20 and 21. The adapter 516 is a small and light-weight piece that connects snugly to the power input port of the hand-held controller 526. The adapter 516 can remain with the hand-held controller 526 at all times, even when the controller 526 is not being charged in the charging station 510. When the hand-held controller 526 is in use during operation of a video game, when the controller 526 is stored, and when it is charging, the adapter 516 can remain connected to (and physically mounted on) the controller 526. The adapter 516 is small and light weight, so that it does not interfere with operation of the controller 526. When the controller 526 needs to be recharged, connecting it to the charging station 510 is as easy as dropping it into one of the docking bays 512, 514. The adapter 516 slides easily into the recess 530, and the electrical leads 522 on the bottom of the adapter 516 make an electrical connection with the electrical contacts 520 in the recess 530. The charging station 510 is connected to a power supply through its own power input. The charging station 510 then provides power to the controller 526 to recharge the controller's batteries. This recharging process is fast and easy, as the adapter 516 allows the controller 526 to be simply dropped into place, rather than carefully connected to a fragile port or connector.

While the embodiment described above uses a vertical orientation, with the controller 526 and adapter 516 being dropped from above into the recess 530, other orientations may be used as well. In one embodiment, the adapter 516 is received horizontally into one of the docking bays 512, 514, and the electrical contacts 520 in the docking bay and electrical leads 522 on the adapter 516 are arranged vertically to make contact with each other when the adapter 516 is horizontally placed into the docking bay. In one embodiment, the adapter 516 is placed into the docking bay by a push-fit, press-fit, or snap-fit, rather than simply a drop-fit. These fitting engagements are fast and easy to use, and also provide a reliable connection between the adapter 516 and charging station. In another embodiment, the charging station includes prongs that hold the controller and adapter into place after they have been placed (vertically or horizontally) into the docking bay to obtain a complete electrical connection.

The charging station 510 can charge two controllers 526 simultaneously (or concurrently), or it can charge one at a time. The power input for the charging station 510 may be a power cord 544, as shown in FIG. 20, that connects to an alternating current (AC) power supply. In this case, the charging station 510 includes an AC/DC converter electrically coupled between the power input and the electrical contacts 520, in order to provide direct current power to the contacts 520 and from there to the controllers 526. The AC/DC converter 546 may be internal to the base 524 or external. In another embodiment, the power input is a USB port that connects to the CED to obtain DC power from the CED. The charging station provides this DC power to the electrical contacts 520 and from there to the controllers 526. In other embodiments, DC power may be provided as input to the charging station 510, where the DC power may be provided by an external AC/DC converter.

The electrical contacts 520 may include a spring coupling the contacts 520 to the base 524. The weight of the controller 526 pushes the adapter 516 down into the recess 530, pressing the electrical leads 522 on the adapter 516 against the electrical contacts 520. The spring pushes back up on the contacts 520, pushing them against the electrical leads 522 to ensure a complete electrical connection.

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The charging station 510 may also include an indicator 548 that indicates a status of the charging station 510. In one embodiment, the indicator 548 includes two LED assemblies 550, 552 (see FIG. 16). The LED assemblies 550, 552 correspond with the first and second docking bays 512, 514, respectively, so as to indicate the charging status of the hand-held controller 526 (or any other suitable accessory device) being charged in the respective docking bay. Each of the LED assemblies 550 and 552 includes at least two LEDs having different colors. By way of example, each of the LED assemblies 550 and 552 in one embodiment includes a red LED and a green LED. While the respective handheld controller 526 is being charged, the red LED is emitted to indicate that the hand-held controller 526 (i.e., the battery inside the hand-held controller 526) is currently being charged. Further, when the respective hand-held controller 526 is finished charging, the green LED is emitted to indicate that the charging has been completed. In other embodiments, each of the LED assemblies 550, 552 may include different color LEDs and/or different number (e.g., three) of LEDs to indicate respective charging status.

In still other embodiments, each of the LED assemblies 550, 552 may include a single LED, and may be referred to as LEDs 550, 552. The first LED 550 illuminates with a first color, for example red, to indicate that the charging station 510 is currently charging an accessory device. The second LED 552 illuminates with a second color, for example green, to indicate that the charging station 510 is finished charging. The LEDs 550, 552 may be electrically coupled to a current detector 521 (see FIG. 22) which provides the signals to illuminate the LEDs. In one embodiment, the charging station 510 stops providing power to the controller 526 when the controller's internal battery is completely charged.

A block diagram of the charging station 510 is shown in FIG. 22, showing some of the above-described components of the charging station in schematic form. As can be seen in FIG. 22, the charging station (or charger base) 510 includes electrical contacts 520 that are adapted to be electrically coupled with the accessory device 526 via the adapter 516. This way, the charging station 510 is capable of supplying the power received from a power adapter or a power supply to the accessory device 526 (e.g., for charging).

In one embodiment, the charger base includes the AC/DC converter 546 for converting input AC power to DC power for charging the accessory device 526. In other embodiments, the charging station 510 may be provided with DC power via a mini-USB port, an external AC/DC converter, or any other suitable DC power supply. The charging station 510 may include a USB host used to provide DC power via mini-USB port.

In one embodiment, the charging station 510 includes a current detector 521 for detecting the amount of current being provided by the power supply to the accessory device 526 through the contacts 520. If sufficient current (e.g., a predetermined amount of current) is detected by the current detector 521, the corresponding LED (e.g., a red LED) is emitted to indicate that the accessory device 526 is being charged. Then, when the charging has been completed, less current is detected because the battery in the accessory device is already substantially fully charged. In this case, another LED (e.g., a green LED) is emitted to indicate that charging has been completed.

A circuit diagram of the charging station 510 is shown in FIGS. 23A and 23B. As can be seen in FIGS. 23A and 23B, each of the LED assemblies includes two LEDs (green LED LED2 and red LED LED1, or green LED LED4 and red LED LED3). As can also be seen in FIGS. 23A and 23B, the current

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detector 521 in one embodiment is implemented using a quad operational amplifier chip LM324. The current detector 521 controls light emission of LEDs LED1 and LED2 and/or the light emission of LEDs LED3 and LED4, depending on whether or not sufficient current for charging a respective accessory device is detected.

While the CED is described in the above embodiments as a video game console, and the accessory device is described as a video game controller for the video game console, the invention may be used for other CEDs and accessory devices, such as cell phones, wireless headsets, personal computers and related peripheral devices, and many other electronic devices. This list is meant to be illustrative only, and not limiting.

Also, while some of the embodiments are primarily described as a charging system for charging video game controllers, the present invention is not limited thereto. The charging system in various embodiments may be used or be modified to be used for charging any suitable hand-held electronics devices or accessories, such as, for example, hand-held video games, or hand-held audio or multimedia players such as MP3 players, without departing from the spirit or scope of the present invention.

It will be appreciated by those with ordinary skill in the art that the invention can be embodied in other specific forms without departing from the spirit or essential character thereof. The embodiments described above should be considered to be illustrative and not restrictive. The scope of the present invention is defined by the appended claims and their equivalents.

What is claimed is:

1. A video game controller charging system for charging a plurality of video game controllers, each having a power input port, the video game controller charging system comprising:
 a base;
 a plurality of docking bays supported by the base and configured to receive and support the video game controllers while the video game controllers are being charged, each of the docking bays comprising a pair of opposing surfaces and being open on opposite sides between the opposing surfaces such that handle portions of the video game controllers are outwardly projectable from each of the open opposite sides and graspable by a user; and
 a plurality of male DC ports, each electrically coupled to a power input and configured to directly couple to and provide DC power to the power input port of a respective video game controller of the plurality of video game controllers without the use of an external or retractable cable, each of the DC ports being between the opposing surfaces of a respective docking bay of the plurality of docking bays, each of the DC ports configured to electrically and mechanically couple to and support the respective video game controller within the respective docking bay,
 wherein the power input is spaced apart from the plurality of docking bays,
 wherein the video game controller charging system is configured to concurrently charge the plurality of video game controllers in the plurality of docking bays, and
 wherein at least one of the opposing surfaces extends continuously from a first end to a second end, the first end being spaced from the DC port of the respective docking bay at a first side of the DC port, the second end being spaced from the DC port of the respective docking bay at a second side of the DC port opposite the first side.

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2. The video game controller charging system of claim 1, wherein at least one port of a DC port of the plurality of DC ports or the power input port of the respective video game controller is insertable into the other of the DC port or the power input port of the respective video game controller, to provide electrical and mechanical coupling between the video game controller charging system and the respective video game controller.

3. The video game controller charging system of claim 1, wherein the docking bays are configured to receive and support the video game controllers such that the handle portions located at opposite sides of the power input port of each of the video game controllers are graspable by a user with two hands in a position for playing a video game.

4. The video game controller charging system of claim 1, wherein the pairs of opposing surfaces comprise parallel surfaces configured to align the video game controllers in the docking bays such that the power input ports of the respective video game controllers couple to the DC ports.

5. The video game controller charging system of claim 1, wherein each of the DC ports is spaced apart from each of the opposing surfaces of the respective docking bay.

6. The video game controller charging system of claim 1, wherein each of the opposing surfaces extends continuously from a respective first end to a respective second end, the respective first end being spaced from the DC port of the respective docking bay at a first side of the DC port, the respective second end being spaced from the DC port of the respective docking bay at a second side of the DC port opposite the first side.

7. The video game controller charging system of claim 1, wherein a forward portion of each of the video game controllers including the power input port is insertable into the respective docking bay.

8. The video game controller charging system of claim 1, wherein each of the docking bays has a substantially same size and configuration, and each of the video game controllers has a substantially same size and configuration to be received and supported in one of the docking bays.

9. The video game controller charging system of claim 1, wherein the docking bays are spaced from one another along a lengthwise direction of the video game controller charging system, and wherein the docking bays are symmetric about a midplane extending in the lengthwise direction.

10. A video game controller charging system for charging a plurality of video game controllers, each including a central forward portion having a power input port, handle portions at opposite sides of the central forward portion, and a rechargeable battery disposed within the video game controller, the video game controller charging system comprising:

a support structure comprising a power interface for coupling to a single external power cord; and
 a plurality of docking bays supported by the support structure, each of the docking bays comprising:
 a pair of opposing surfaces; and
 a male DC port between and spaced apart from the opposing surfaces, the DC port electrically coupled to the power interface and configured to plug into and provide DC power to the power input port of a respective video game controller of the plurality of video game controllers, thereby mechanically holding and supporting the central forward portion of the respective video game controller within the docking bay such that the handle portions of the respective video game controller project outwardly from the docking bay while the rechargeable battery is being charged,

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wherein the video game controller charging system is configured to concurrently charge the plurality of video game controllers in the plurality of docking bays, wherein the docking bays are located adjacent to one another such that the video game controllers being charged are spaced apart and stacked next to one another such that the handle portions of each of the video game controllers are individually graspable by a user when the video game controllers are being concurrently charged, and

wherein the power interface is spaced apart from the plurality of docking bays such that the power cord is disposed away from the docking bays.

11. The video game controller charging system of claim 10, wherein at least one of the DC port or the power input port of the respective video game controller is insertable into the other of the DC port or the power input port of the respective video game controller to provide electrical and mechanical coupling between the video game controller charging system and the respective video game controller without the use of an external or retractable cable.

12. The video game controller charging system of claim 10, wherein each of the docking bays is open on opposite sides between the respective opposing surfaces such that the handle portions of the respective video game controller are outwardly projectable through each of the open opposite sides.

13. The video game controller charging system of claim 12, wherein the docking bays are configured to receive and support the video game controllers such that the handle portions of each of the video game controllers are graspable by a user with two hands in a position for playing a video game.

14. The video game controller charging system of claim 10, wherein the pairs of opposing surfaces comprise parallel surfaces configured to align the video game controllers in the docking bays such that the power input ports of the respective video game controllers couple to the DC ports.

15. The video game controller charging system of claim 10, wherein the docking bays are spaced apart from one another along a lengthwise direction of the video game controller charging system, and wherein the docking bays are symmetric about a midplane extending in the lengthwise direction.

16. The video game controller charging system of claim 10, wherein at least one of the opposing surfaces extends continuously from a first end to a second end, the first end being spaced from the DC port of the respective docking bay at a first side of the DC port, the second end being spaced from the DC port of the respective docking bay at a second side of the DC port opposite the first side.

17. The video game controller charging system of claim 10, wherein the male DC ports are male mini-USB connectors.

18. A method of charging a plurality of substantially similar video game controllers, each including a forward portion having a female power input port, handle portions at opposite

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sides of the forward portion, and a rechargeable battery disposed within the video game controller, the method comprising:

providing a video game controller charging system comprising:

a base comprising a power input;

a plurality of docking bays supported by the base and configured to receive and support the video game controllers while the rechargeable batteries of the video game controllers are being charged, each of the docking bays comprising a pair of opposing surfaces and being open on opposite sides between the opposing surfaces, the docking bays being spaced apart from one another, the power input being spaced apart from the docking bays; and

a plurality of male DC ports corresponding to the plurality of docking bays, each DC port configured to plug into and support a respective video game controller in the corresponding docking bay and provide DC power to the power input port of the respective video game controller of the plurality of video game controllers, each of the DC ports being between and spaced apart from the opposing surfaces of a respective docking bay of the plurality of docking bays, at least one of the opposing surfaces extending continuously from a first end to a second end, the first end being spaced from the DC port of the respective docking bay at a first side of the DC port, the second end being spaced from the DC port of the respective docking bay at a second side of the DC port opposite the first side;

electrically coupling a single power cord to the power input, and disposing the power cord away from the docking bays; and

placing the video game controllers in respective docking bays of the plurality of docking bays

with the forward portions of the video game controllers in the respective docking bays such that the handle portions are exposed and graspable at opposite sides of the respective docking bays.

19. The method of claim 18, wherein placing the video game controllers in the respective docking bays comprises inserting at least one of the DC ports or the power input ports into the other of the DC ports or the power input ports to electrically and mechanically couple the video game controllers to the video game controller charging system.

20. The method of claim 18, wherein charging the video game controllers comprises charging the video game controllers concurrently in the respective docking bays.

21. The method of claim 18, wherein placing the video game controllers in the respective docking bays comprises inserting the forward portion of each of the video game controllers including the power input port into the respective docking bay.

22. The method of claim 18, wherein the male DC ports are male mini-USB connectors.

* * * * *

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

NOTICE OF ASSIGNMENT TO UNITED STATES MAGISTRATE JUDGE FOR DISCOVERY

This case has been assigned to District Judge Dolly Gee and the assigned discovery Magistrate Judge is Michael Wilner.

The case number on all documents filed with the Court should read as follows:

CV13 - 1935 DMG (MRWx)

Pursuant to General Order 05-07 of the United States District Court for the Central District of California, the Magistrate Judge has been designated to hear discovery related motions.

All discovery related motions should be noticed on the calendar of the Magistrate Judge

=====

NOTICE TO COUNSEL

A copy of this notice must be served with the summons and complaint on all defendants (if a removal action is filed, a copy of this notice must be served on all plaintiffs).

Subsequent documents must be filed at the following location:

Western Division
312 N. Spring St., Rm. G-8
Los Angeles, CA 90012

Southern Division
411 West Fourth St., Rm. 1-053
Santa Ana, CA 92701-4516

Eastern Division
3470 Twelfth St., Rm. 134
Riverside, CA 92501

Failure to file at the proper location will result in your documents being returned to you.

Name & Address: G. Warren Bleeker
CA Bar No. 210834; warren.bleeker@cph.com
CHRISTIE, PARKER & HALE, LLP
655 North Central Avenue, Suite 2300
Glendale, California 91203-1445
Phone: (626) 795-9900/ Fax (626) 577-8800

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

NYKO TECHNOLOGIES, INC., a California
corporation

PLAINTIFF(S)

v.

ENERGIZER HOLDINGS, INC.,
EVEREADY BATTERY COMPANY, INC., and
PERFORMANCE DESIGNED PRODUCTS LLC.

DEFENDANT(S).

See attached

CASE NUMBER

CV13-01935 DMG IMPW

SUMMONS

TO: DEFENDANT(S):

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it), you must serve on the plaintiff an answer to the attached complaint _____ amended complaint counterclaim cross-claim or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff's attorney, G. Warren Bleeker, whose address is CHRISTIE, PARKER, HALE, LLP 655 N. Central Ave., Ste. 2300, Glendale, CA 91203. If you fail to do so, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

MAR 18 2013

Dated: _____

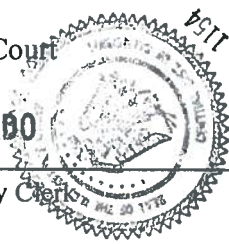
Clerk, U.S. District Court

JULIE PRADO

By: _____

Deputy Clerk

(Seal of the Court)



[Use 60 days if the defendant is the United States or a United States agency, or is an officer or employee of the United States. Allowed 60 days by Rule 12(a)(3)].

CV-01A (10/11)
COPY

SUMMONS

CIVIL COVER SHEET

I. (a) PLAINTIFFS (Check box if you are representing yourself)

NYKO TECHNOLOGIES, INC., a California corporation

DEFENDANTS (Check box if you are representing yourself)

EENERGIZER HOLDINGS, INC., a Missouri corporation,
 EVEREADY BATTERY COMPANY, INC., a Delaware corporation, and
 PERFORMANCE DESIGNED PRODUCTS LLC, a California limited liability company

(b) Attorneys (Firm Name, Address and Telephone Number. If you are representing yourself, provide same.)

G. Warren Bleeker, CA Bar No. 210834
 CHRISTIE, PARKER & HALE, LLP
 655 North Central Avenue, Suite 2300, Glendale, California 91203-1445
 Phone: (626) 795-9900/Fax: (626) 577-8800/ E-mail: warren.bleeker@cph.com

(b) Attorneys (Firm Name, Address and Telephone Number. If you are representing yourself, provide same.)

II. BASIS OF JURISDICTION (Place an X in one box only.)

1. U.S. Government Plaintiff
 2. U.S. Government Defendant
 3. Federal Question (U.S. Government Not a Party)
 4. Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES—For Diversity Cases Only
 (Place an X in one box for plaintiff and one for defendant)

- | | | | | | |
|---|--------------------------------|--------------------------------|---|--------------------------------|--------------------------------|
| Citizen of This State | PTF <input type="checkbox"/> 1 | DEF <input type="checkbox"/> 1 | Incorporated or Principal Place of Business in this State | PTF <input type="checkbox"/> 4 | DEF <input type="checkbox"/> 4 |
| Citizen of Another State | <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | Incorporated and Principal Place of Business in Another State | <input type="checkbox"/> 5 | <input type="checkbox"/> 5 |
| Citizen or Subject of a Foreign Country | <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | Foreign Nation | <input type="checkbox"/> 6 | <input type="checkbox"/> 6 |

IV. ORIGIN (Place an X in one box only.)

1. Original Proceeding
 2. Removed from State Court
 3. Remanded from Appellate Court
 4. Reinstated or Reopened
 5. Transferred from Another District (Specify)
 6. Multi-District Litigation

V. REQUESTED IN COMPLAINT: JURY DEMAND: Yes No (Check "Yes" only if demanded in complaint.)

CLASS ACTION under F.R.Cv.P. 23: Yes No **MONEY DEMANDED IN COMPLAINT: \$** _____

VI. CAUSE OF ACTION (Cite the U.S. Civil Statute under which you are filing and write a brief statement of cause. Do not cite jurisdictional statutes unless diversity.)
 35 U.S.C. Section 271; Patent Infringement

VII. NATURE OF SUIT (Place an X in one box only.)

OTHER STATUTES	CONTRACT	REAL PROPERTY CONT.	IMMIGRATION	PRISONER PETITIONS	PROPERTY RIGHTS
<input type="checkbox"/> 375 False Claims Act	<input type="checkbox"/> 110 Insurance	<input type="checkbox"/> 240 Torts to Land	<input type="checkbox"/> 462 Naturalization Application	<input type="checkbox"/> 463 Alien Detainee	<input type="checkbox"/> 820 Copyrights
<input type="checkbox"/> 400 State Reapportionment	<input type="checkbox"/> 120 Marine	<input type="checkbox"/> 245 Tort Product Liability	<input type="checkbox"/> 465 Other Immigration Actions	<input type="checkbox"/> 510 Motions to Vacate Sentence	<input checked="" type="checkbox"/> 830 Patent
<input type="checkbox"/> 410 Antitrust	<input type="checkbox"/> 130 Miller Act	<input type="checkbox"/> 290 All Other Real Property	TORTS		<input type="checkbox"/> 840 Trademark
<input type="checkbox"/> 430 Banks and Banking	<input type="checkbox"/> 140 Negotiable Instrument	PERSONAL INJURY		<input type="checkbox"/> 530 General	SOCIAL SECURITY
<input type="checkbox"/> 450 Commerce/ICC Rates/Etc.	<input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment	<input type="checkbox"/> 310 Airplane	<input type="checkbox"/> 370 Other Fraud	<input type="checkbox"/> 535 Death Penalty	<input type="checkbox"/> 861 HIA (1395ff)
<input type="checkbox"/> 460 Deportation	<input type="checkbox"/> 151 Medicare Act	<input type="checkbox"/> 315 Airplane Product Liability	<input type="checkbox"/> 371 Truth in Lending	<input type="checkbox"/> 540 Mandamus/Other	<input type="checkbox"/> 862 Black Lung (923)
<input type="checkbox"/> 470 Racketeer Influenced & Corrupt Org.	<input type="checkbox"/> 152 Recovery of Defaulted Student Loan (Excl. Vet.)	<input type="checkbox"/> 320 Assault, Libel & Slander	<input type="checkbox"/> 380 Other Personal Property Damage	<input type="checkbox"/> 550 Civil Rights	<input type="checkbox"/> 863 DIWC/DIWW (405 (g))
<input type="checkbox"/> 480 Consumer Credit	<input type="checkbox"/> 153 Recovery of Overpayment of Vet. Benefits	<input type="checkbox"/> 330 Fed. Employers' Liability	<input type="checkbox"/> 385 Property Damage Product Liability	<input type="checkbox"/> 555 Prison Condition	<input type="checkbox"/> 864 SSID Title XVI
<input type="checkbox"/> 490 Cable/Sat TV	<input type="checkbox"/> 160 Stockholders' Suits	<input type="checkbox"/> 340 Marine	BANKRUPTCY		<input type="checkbox"/> 865 RSI (405 (g))
<input type="checkbox"/> 850 Securities/Commodities/Exchange	<input type="checkbox"/> 190 Other Contract	<input type="checkbox"/> 345 Marine Product Liability	<input type="checkbox"/> 422 Appeal 28 USC 158	FORFEITURE/PENALTY	
<input type="checkbox"/> 890 Other Statutory Actions	<input type="checkbox"/> 195 Contract Product Liability	<input type="checkbox"/> 350 Motor Vehicle	<input type="checkbox"/> 423 Withdrawal 28 USC 157	<input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC 881	<input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant)
<input type="checkbox"/> 891 Agricultural Acts	<input type="checkbox"/> 196 Franchise	<input type="checkbox"/> 355 Motor Vehicle Product Liability	CIVIL RIGHTS		<input type="checkbox"/> 871 IRS-Third Party 26 USC 7609
<input type="checkbox"/> 893 Environmental Matters	<input type="checkbox"/> 210 Land	<input type="checkbox"/> 360 Other Personal Injury	<input type="checkbox"/> 440 Other Civil Rights	<input type="checkbox"/> 690 Other	FEDERAL TAX SUITS
<input type="checkbox"/> 895 Freedom of Info. Act	<input type="checkbox"/> 220 Foreclosure	<input type="checkbox"/> 362 Personal Injury-Med Malpractice	<input type="checkbox"/> 441 Voting	LABOR	
<input type="checkbox"/> 896 Arbitration	<input type="checkbox"/> 220 Foreclosure	<input type="checkbox"/> 365 Personal Injury-Product Liability	<input type="checkbox"/> 442 Employment	<input type="checkbox"/> 710 Fair Labor Standards Act	
<input type="checkbox"/> 899 Admin. Procedures Act/Review of Appeal of Agency Decision	<input type="checkbox"/> 230 Rent Lease & Ejectment	<input type="checkbox"/> 367 Health Care/Pharmaceutical Personal Injury Product Liability	<input type="checkbox"/> 443 Housing/Accommodations	<input type="checkbox"/> 720 Labor/Mgmt. Relations	
<input type="checkbox"/> 950 Constitutionality of State Statutes		<input type="checkbox"/> 368 Asbestos Personal Injury Product Liability	<input type="checkbox"/> 444 American with Disabilities-Employment	<input type="checkbox"/> 740 Railway Labor Act	
			<input type="checkbox"/> 446 American with Disabilities-Other	<input type="checkbox"/> 751 Family and Medical Leave Act	
			<input type="checkbox"/> 448 Education	<input type="checkbox"/> 790 Other Labor Litigation	
				<input type="checkbox"/> 791 Employee Ret. Inc. Security Act	

FOR OFFICE USE ONLY: Case Number: _____

AFTER COMPLETING PAGE 1 OF FORM CV-71, COMPLETE THE INFORMATION REQUESTED ON PAGE 2.

**UNITED STATES DISTRICT COURT, CENTRAL DISTRICT OF CALIFORNIA
CIVIL COVER SHEET**

VIII(a). IDENTICAL CASES: Has this action been previously filed in this court and dismissed, remanded or closed? NO YES

If yes, list case number(s): _____

VIII(b). RELATED CASES: Have any cases been previously filed in this court that are related to the present case? NO YES

If yes, list case number(s): CV12-03001 GAF (VBKx)

Civil cases are deemed related if a previously filed case and the present case:

- (Check all boxes that apply) A. Arise from the same or closely related transactions, happenings, or events; or
 B. Call for determination of the same or substantially related or similar questions of law and fact; or
 C. For other reasons would entail substantial duplication of labor if heard by different judges; or
 D. Involve the same patent, trademark or copyright, and one of the factors identified above in a, b or c also is present.

IX. VENUE: (When completing the following information, use an additional sheet if necessary.)

(a) List the County in this District; California County outside of this District; State if other than California; or Foreign Country, in which **EACH** named plaintiff resides.

Check here if the government, its agencies or employees is a named plaintiff. If this box is checked, go to item (b).

County in this District:*	California County outside of this District; State, if other than California; or Foreign Country
Los Angeles	

(b) List the County in this District; California County outside of this District; State if other than California; or Foreign Country, in which **EACH** named defendant resides.

Check here if the government, its agencies or employees is a named defendant. If this box is checked, go to item (c).

County in this District:*	California County outside of this District; State, if other than California; or Foreign Country
Los Angeles - Defendant Performance Designed Products LLC	St. Louis, Missouri - Defendants Energizer Holdings, Inc. and Eveready Battery Company, Inc.

(c) List the County in this District; California County outside of this District; State if other than California; or Foreign Country, in which **EACH** claim arose.
NOTE: In land condemnation cases, use the location of the tract of land involved.

County in this District:*	California County outside of this District; State, if other than California; or Foreign Country
Los Angeles	

*Los Angeles, Orange, San Bernardino, Riverside, Ventura, Santa Barbara, or San Luis Obispo Counties

Note: In land condemnation cases, use the location of the tract of land involved

X. SIGNATURE OF ATTORNEY (OR SELF-REPRESENTED LITIGANT):  DATE: March 18, 2013

Notice to Counsel/Parties: The CV-71 (JS-44) Civil Cover Sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law. This form, approved by the Judicial Conference of the United States in September 1974, is required pursuant to Local Rule 3-1 is not filed but is used by the Clerk of the Court for the purpose of statistics, venue and initiating the civil docket sheet. (For more detailed instructions, see separate instructions sheet).

Key to Statistical codes relating to Social Security Cases:

Nature of Suit Code	Abbreviation	Substantive Statement of Cause of Action
861	HIA	All claims for health insurance benefits (Medicare) under Title 18, Part A, of the Social Security Act, as amended. Also, include claims by hospitals, skilled nursing facilities, etc., for certification as providers of services under the program. (42 U.S.C. 1935FF(b))
862	BL	All claims for "Black Lung" benefits under Title 4, Part B, of the Federal Coal Mine Health and Safety Act of 1969. (30 U.S.C. 923)
863	DIWC	All claims filed by insured workers for disability insurance benefits under Title 2 of the Social Security Act, as amended; plus all claims filed for child's insurance benefits based on disability. (42 U.S.C. 405 (g))
863	DIWW	All claims filed for widows or widowers insurance benefits based on disability under Title 2 of the Social Security Act, as amended. (42 U.S.C. 405 (g))
864	SSID	All claims for supplemental security income payments based upon disability filed under Title 16 of the Social Security Act, as amended.
865	RSI	All claims for retirement (old age) and survivors benefits under Title 2 of the Social Security Act, as amended. (42 U.S.C. 405 (g))