

1 Olivia T. Nguyen (CA SBN 337927)
2 *onguyen@fr.com*
3 FISH & RICHARDSON P.C.
4 500 Arguello Street, Suite 400
5 Redwood City, CA 94063
6 Telephone: (650) 839-5070
7 Facsimile: (650) 839-5071

8 Counsel for Plaintiff
9 LITTELFUSE, INC.

10 UNITED STATES DISTRICT COURT
11 NORTHERN DISTRICT OF CALIFORNIA

12 LITTELFUSE, INC.,

13 Plaintiff,

14 v.

15 ADLER ELEKTROTECHNIK LEIPZIG GMBH
16 and WORLD PRODUCTS, INC.,

17 Defendants.

Case No. _____

**COMPLAINT FOR WILLFUL PATENT
INFRINGEMENT**

JURY TRIAL DEMANDED

18 Plaintiff LITTELFUSE, INC. (“Littelfuse”) files this Complaint and demand for jury trial
19 seeking relief for the willful infringement of United States Patent No. 9,564,281 (“the ’281 Patent”)
20 by Defendants ADLER ELEKTROTECHNIK LEIPZIG GMBH (“Adler”) and WORLD
21 PRODUCTS, INC. (“World Products” and with Adler collectively “Defendants”). On April 4,
22 2023, Littelfuse sent a letter to Defendants advising them of their infringement of the ’281 Patent
23 through their sale of fuse end caps with a crimpable terminal and fuses incorporating such fuse end
24 caps, including Adler 1500 volt fuses bearing model numbers A74, A78, A79, A84, A85 and A89.
25 Since receiving that letter, Defendants have not stopped their willful infringement, which has led to
26 this legal action.

1 Littelfuse states and alleges the following:

2 **THE PARTIES**

3 1. Littelfuse is a Delaware corporation with a place of business in Chicago, Illinois.
4 Littelfuse is a global leader in circuit protection, power control, and sensing platforms. Since its
5 founding in 1927, Littelfuse has led the industry with innovative products and services to serve the
6 engineering needs of customers in nearly every conceivable industry, including the solar industry,
7 in which in-line fuses covered by the '281 Patent are primarily marketed.

8 2. On information and belief, Adler is a German limited liability company with a place
9 of business in or near Leipzig, Germany. Adler sells in-line fuses in competition with Littelfuse.

10 3. On information and belief, World Products is a California corporation with a place
11 of business in Sonoma, California. World Products is believed to be an exclusive distributor of in-
12 line fuses for Adler in the United States.

13 **JURISDICTION, VENUE, AND DIVISIONAL ASSIGNMENT**

14 4. This is an action for patent infringement arising under the patent laws of the United
15 States (Title 35, United States Code).

16 5. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C.
17 §§ 1331 and 1338(a).

18 6. This Court has personal jurisdiction over Adler because Adler transacts continuous
19 and systematic business within the Northern District of California, including the sale and
20 importation of infringing in-line fuses in and into the Northern District of California.

21 7. This Court has personal jurisdiction over World Products because World Products is
22 domiciled in and transacts continuous and systematic business within the Northern District of
23 California, including the distribution, use, sale and/or offer to sell, and/or importation of infringing
24 in-line fuses in and into the Northern District of California.

25 8. Venue properly lies within the Northern District of California pursuant to the
26 provisions of 28 U.S.C. §§ 1391(b) and (c) and 1400(b).

27 9. For purposes of divisional assignment under Civil L.R. 3-2(c) and 3-5(b), this action
28 involves intellectual property rights and will be assigned on a district-wide basis.

FACTUAL ALLEGATIONS

1
2 10. On February 7, 2017, United States Patent No. 9,564,281, entitled “Fuse End Cap
3 With Crimpable Terminal,” was duly and legally issued by the United States Patent and Trademark
4 Office. A copy of the ’281 Patent is attached as Exhibit A.

5 11. Plaintiff Littelfuse, by lawful assignment, is the owner of all rights, title, and interest
6 in and to the ’281 Patent.

7 12. While the devices described in the ’281 Patent can be used in many applications, a
8 major use is with photovoltaic applications, i.e., solar panels. The ’281 Patent is directed to a fuse
9 end cap with a crimpable terminal and fuses incorporating such fuse end caps. As background, fuses
10 have long been used in electrical devices for providing an interruptible electrical connection between
11 a source of electrical power and a component in an electrical circuit that is to be protected. *See*
12 Exhibit A at Col. 1:14-17. For example, upon the occurrence of a sudden electrical surge, an element
13 within a fuse may separate and interrupt the flow of electrical current to a protected circuit
14 component, thereby preventing or mitigating potential damage to the component. *See id.* at Col.
15 1:17-24.

16 13. Fuses may be disposed between a component in an electric circuit and a source of
17 electric power and connected by, for example, a conductive wire. *See id.* at Col. 1:25-27. Wires
18 may be connected to the respective ends or end caps of fuses by soldering, welding, and other
19 connections. *See id.* at Col. 1:27-28. These common methods of connecting conductive wires to a
20 fuse or fuse end cap have drawbacks, however, such as generating excessive heat that can damage
21 the fuse. These methods are also problematic in that soldering of conductive wires to fuse ends is
22 prone to inconsistencies that could potentially compromise the electrical connection. Additionally,
23 some prior art fuses require additional components that are awkward, cumbersome and take up
24 valuable space in tight, complex circuitry. *See, e.g., id.* at Col. 1:28-43.

25 14. The ’281 Patent describes a simple, new and improved fuse assembly with a fuse end
26 cap that eliminates the need for soldering or welding the fuse to an electrical wire or conductor,
27 comprising: (1) a mounting cuff defining a first cavity that receives an end of a fuse; (2) a terminal
28 defining a second cavity that receives a conductor, wherein the terminal is crimped about conductor;

1 and (3) a fastening stem that extends from the mounting cuff and into the second cavity of the
2 terminal that receives the conductor. *See id.* at Col. 7:30-42. Such fuses are typically referred to as
3 “in-line” fuses.

4 15. Adler makes, uses, offers for sale, imports into the United States, and sells in-line
5 fuses, including at least the following families of 1500 volt fuses, bearing the model numbers A74,
6 A78, A79, A84, A85 and A89.

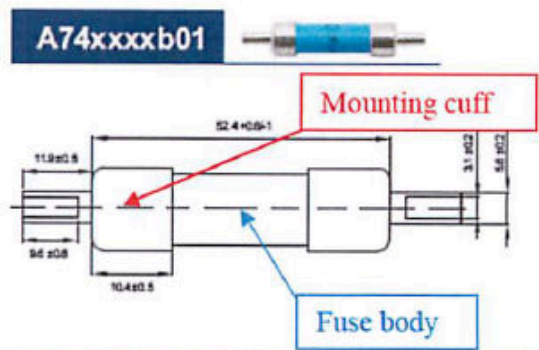
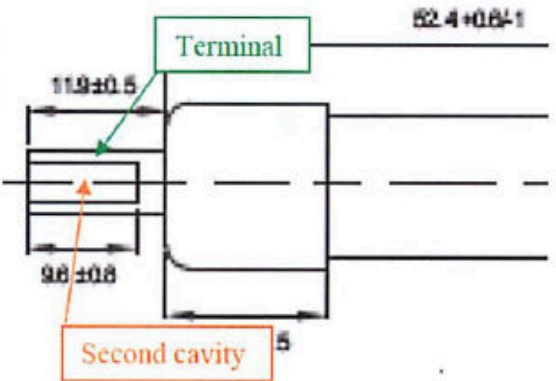
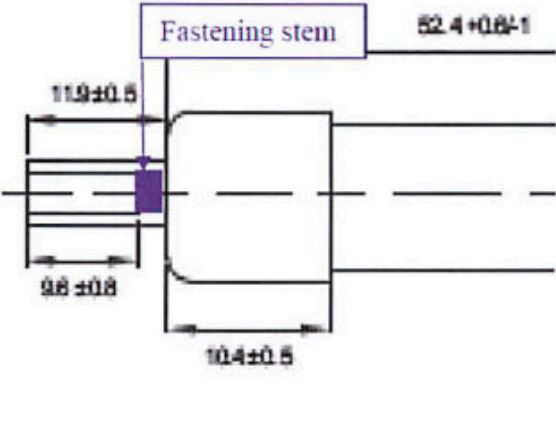
7 16. On information and belief, to account for use in circuits with different amperages,
8 Adler makes, uses, offers for sale, imports into the United States and sells at least 5 different versions
9 of A74 fuses; 9 different versions of A78 fuses; 4 different versions of A79 fuses; 38 different
10 versions of A84 fuses; 30 different versions of A85 fuses; and 24 different versions of A89 fuses
11 (collectively referred to as the “Accused Fuses”). Regardless of the amperage ratings, all of the
12 Accused Fuses share the same fundamental end cap designs that infringe the ’281 Patent.

13 17. Adler’s making, using, offering for sale, importing into the United States, and selling
14 of the Accused Fuses infringes the ’281 Patent, and induces and contributes to the infringement of
15 the ’281 Patent by others.

16 18. On information and belief, Adler has been selling the Accused Fuses in the United
17 States since at least 2020 and continuing through the present.


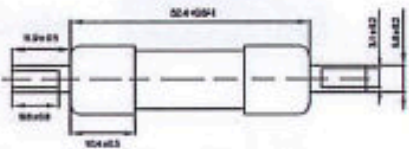
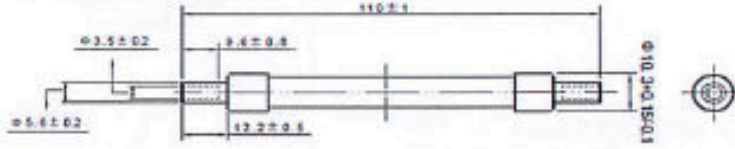

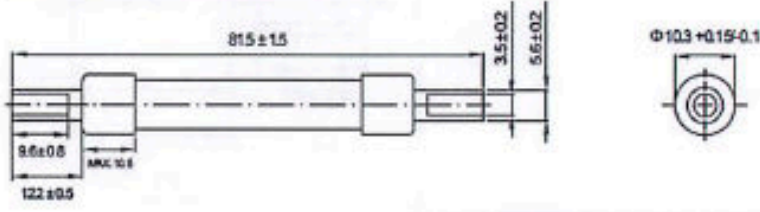
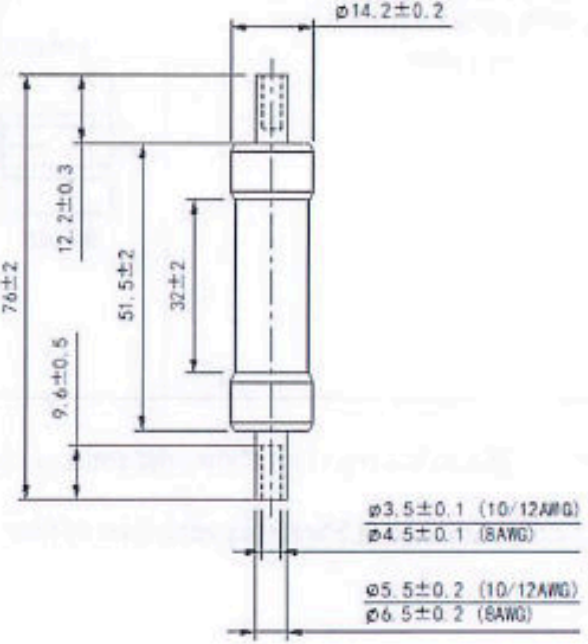
18 19. In the following claim chart, an illustration from Adler’s Data Sheet for the A74 gPV
19 1500 VDC Fuse 14x51 mm shows how that product infringes at least independent Claim 1 of the
20 ’281 Patent:

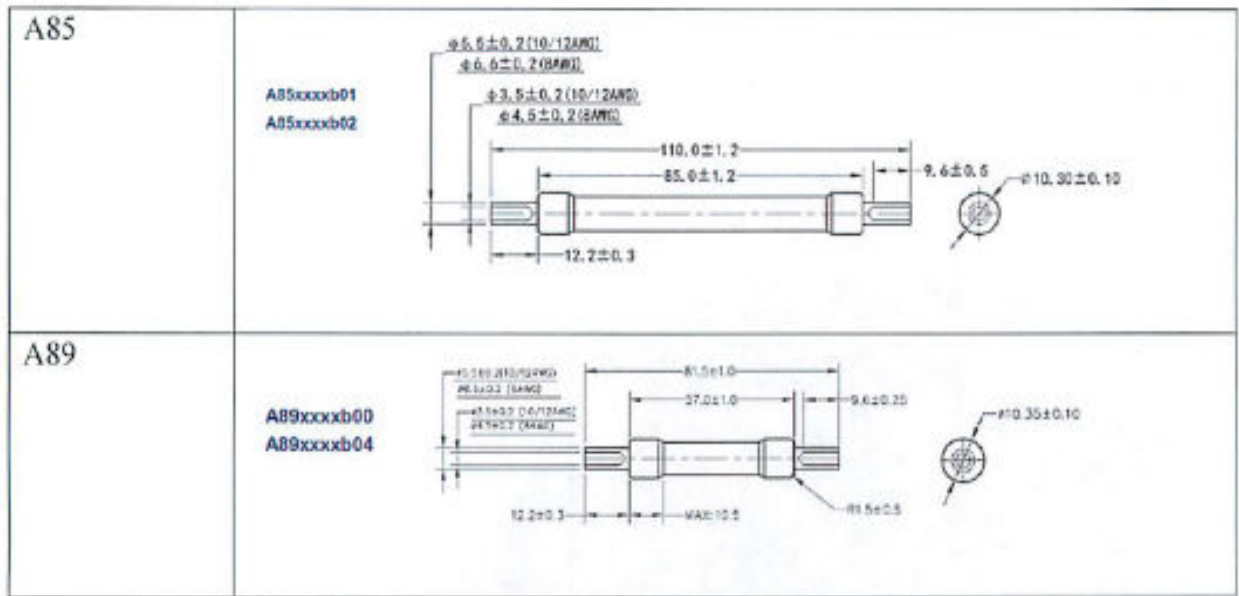
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<p>1 Claim 1 of US Patent No. 9,564,281</p>	<p>Adler's A74 in-line fuse</p>
<p>2 A fuse end cap comprising: 3 a mounting cuff defining a first 4 cavity that receives an end of a fuse 5 body, the end of the fuse body 6 being electrically insulating;</p>	
<p>8 a terminal defining a second cavity 9 that receives a conductor, wherein 10 the terminal is crimped about the 11 conductor to retain the conductor 12 within the second cavity; and</p>	
<p>15 a fastening stem that extends from 16 the mounting cuff and into the 17 second cavity of the terminal that 18 receives the conductor.</p>	

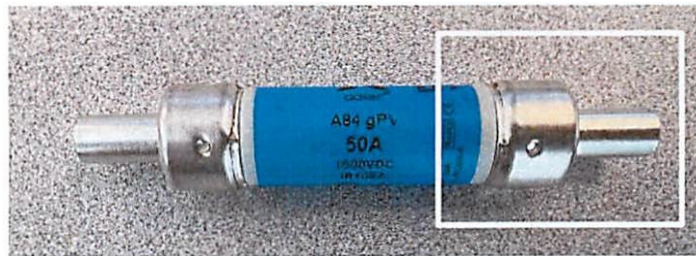
20. The following chart shows the common features of the Accused Fuses as indicated on the Adler Data Sheets for each type of fuse:

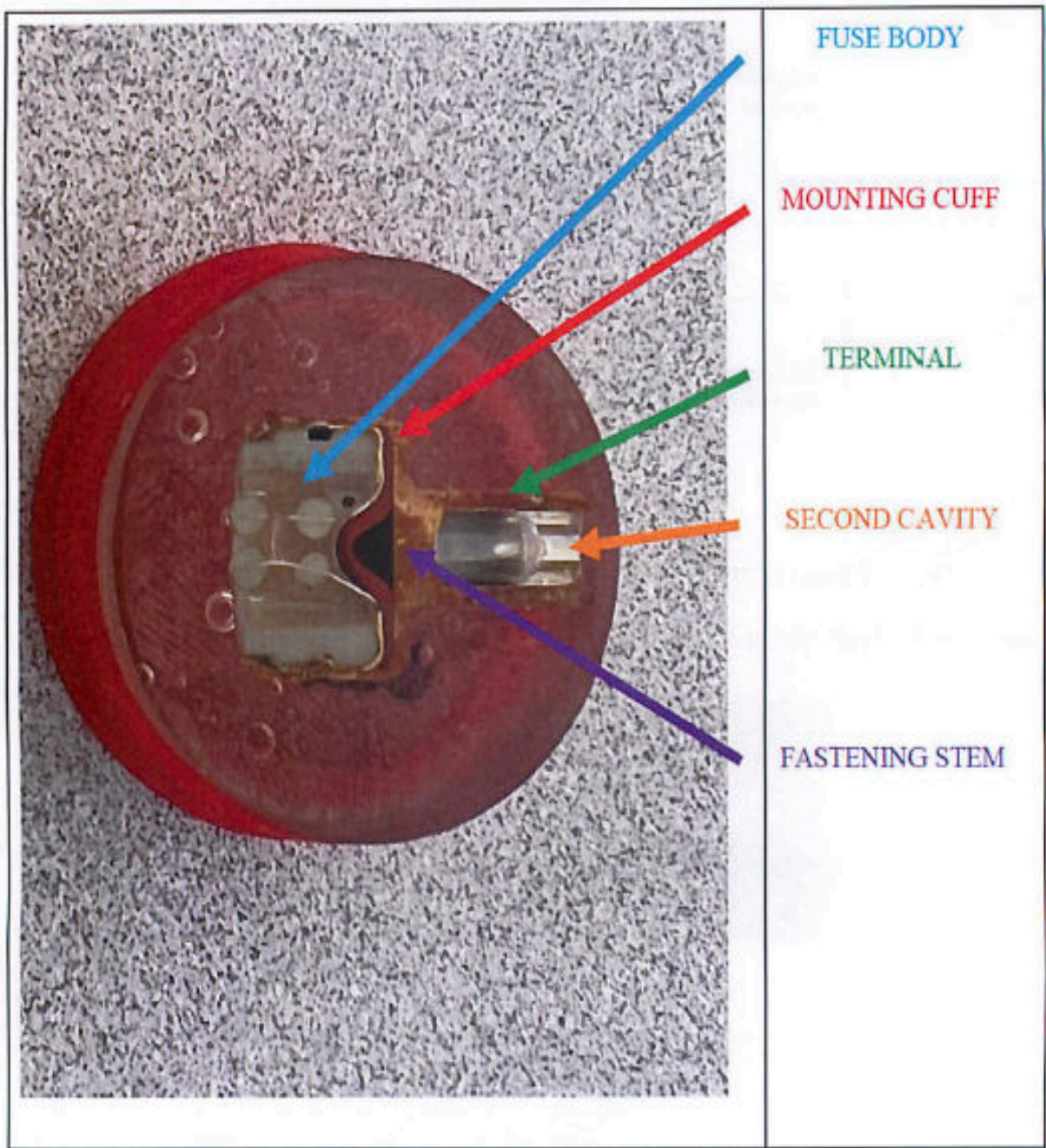
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<p>A74</p>	<p>A74xxxxb01 </p> 
<p>A78</p>	<p>A78xxxxb00 (P-15A)</p> 
<p>A79</p>	<p>A79xxxxb00 </p> 
<p>A84</p>	<p>A84xxxxb01 A84xxxxb04</p> 



21. A physical cross-section of one of the A84 infringing fuses confirms the presence of the features indicated in the corresponding Adler Data sheet.





22
23 22. Adler sells its Accused Fuses to World Products, which sells the Accused Fuses to
24 customers.

25 23. Defendants have had actual knowledge of the '281 Patent and their infringement
26 since receiving the Littelfuse's letter dated April 4, 2023. Upon information and belief, Defendants
27 knew of the '281 Patent since they began marketing and selling the Accused Fuses in the United
28 States and knew since at least April 2022 that the claims of the '281 Patent cover fuses with end

1 caps that are made of a single piece of metal.

2 24. Defendants' customers directly infringe the '281 Patent by using the Accused Fuses
3 in the way in which defendants advertised and intended them to be used, which meets the limitations
4 of at least Claims 1 and 10 of the '281 Patent.

5 25. There are no non-infringing uses of the Accused Fuses.

6 26. Upon information and belief, Defendants have intentionally recommended,
7 encouraged, and promoted infringement of the '281 Patent, and continues to do so, by, among other
8 things, providing and making available documentation that instructs distributors, customers and end
9 users to make and use the Accused Fuses in the only way in which they are intended to be used,
10 which directly infringes the '281 Patent.

11 27. Because there is no non-infringing use of the Accused Fuses, Defendants know and
12 has known that their customers' and end users' conduct directly infringes the claims of the '281
13 Patent. Adler thus willfully and deliberately directly infringes and induces infringement of the '281
14 Patent.

15 28. Despite this knowledge, Defendants have purposefully sold, and continues to
16 purposefully sell, their infringing Accused Fuses to distributors, customers and end users, in
17 complete disregard of Littelfuse's exclusive patent rights to the '281 Patent technology.

18 29. Thus, Defendants have intentionally indirectly infringed the '281 Patent, and
19 continues to do so, in violation of 35 U.S.C. §§ 271(b) and (c) by contributing to the infringement
20 of end users and by actively, knowingly and purposefully inducing end users to directly infringe the
21 '281 Patent.

22 30. Defendants direct and indirect infringement has been and continues to be willful and
23 deliberate because Defendants know, or are willfully and deliberately ignoring that each of their
24 actions constitutes infringement of the '281 Patent, and/or are willfully and deliberately ignoring an
25 objectively high risk that each of their actions constitutes infringement of the '281 Patent.

26 **COUNT I – DIRECT PATENT INFRINGEMENT BY ADLER AND**
27 **WORLD PRODUCTS**
(Violation of 35 U.S.C. § 271(a))

28 31. Littelfuse incorporates by reference herein each of the allegations set forth in

1 paragraphs 1- 30 above.

2 32. On information and belief, Adler and World Products have directly infringed and
3 continue to directly infringe the '281 Patent, under 35 U.S.C. § 271(a), at least by making, importing,
4 distributing, selling, offering for sale and/or using within the United States, the Accused Fuses.

5 33. On information and belief, and, by way of example only and not limitation, the
6 Accused Fuses meet each limitation of at least claim 1 of the '281 Patent, directly and/or under the
7 doctrine of equivalents, because each comprises: A fuse end cap comprising a mounting cuff
8 defining a first cavity that receives an end of a fuse body, the end of the fuse body being electrically
9 insulating; a terminal defining a second cavity that receives a conductor, wherein the terminal is
10 crimped about the conductor to retain the conductor within the second cavity; and a fastening stem
11 that extends from the mounting cuff and into the second cavity of the terminal that receives the
12 conductor.

13 34. As a direct and proximate result of Adler and World Products' patent infringement,
14 Littelfuse has suffered and will continue to suffer damages in an amount to be proven at trial.

15 35. Littelfuse has been irreparably harmed by these acts of patent infringement and will
16 continue to be harmed unless Adler and World Products' further acts of patent infringement are
17 restrained and enjoined by order of this Court. Littelfuse has no adequate remedy at law.

18 36. On information and belief, Adler and World Products' infringement has been and
19 continues to be willful and deliberate because they know, or are willfully and deliberately ignoring
20 that each of their actions constitutes infringement of the '281 Patent, and/or are willfully and
21 deliberately ignoring an objectively high risk that each of their actions constitutes infringement of
22 the '281 Patent.

23 37. Because Adler and World Products' infringement is willful, Littelfuse is entitled to
24 recover treble damages and attorneys' fees pursuant to 35 U.S.C. §§ 284 and 285.

25 **COUNT II – INDIRECT PATENT INFRINGEMENT BY ADLER**
26 **AND WORLD PRODUCTS**
(Violation of 35 U.S.C. §271(b) and (c))

27 38. Littelfuse incorporates by reference herein each of the allegations set forth in
28 paragraphs 1-37 above.

1 39. Adler and World Products have had actual knowledge of the '281 Patent since at
2 least April 2023.

3 40. On information and belief, Adler and World Products specifically intended the
4 Accused Fuses to be made, used, sold and offered for sale in a manner that directly infringes the
5 '281 Patent.

6 41. On information and belief, Adler and World Products have specific knowledge that
7 the manufacture, distribution, sale, offer for sale and use of the Accused Fuses by its distributors,
8 customers, and end users would directly, or under the doctrine of equivalents, infringe the '281
9 Patent because Adler and World Products specifically touted, and encouraged use of, the "in-line"
10 feature of the Accused Fuses.

11 42. Accordingly, Adler and World Products have violated 35 U.S.C. § 271(b) by
12 intentionally inducing its distributors, customers and end users to make, use sell and offer for sale
13 the Accused Fuses in the manner described in Adler and World Products' product literature, which
14 directly infringes at least Claims 1 and 10 of the '281 Patent.

15 43. The actions of Adler and World Products demonstrate a clear intent to induce its
16 distributors, customers and end users to directly infringe the '281 Patent, which constitutes a
17 violation of 35 U.S.C. §271(b) by Adler and World Products.

18 44. Adler and World Products offer to sell or sell within the United States or import into
19 the United States fuse end caps and fuses constituting a material part of the invention claimed in the
20 '281 Patent, knowing the same to be especially made or especially adapted for use in an infringement
21 of that patent, and not a staple article or commodity of commerce suitable for substantial
22 noninfringing use. Accordingly, Adler and World Products have violated 35 U.S.C. § 271(c).

23 45. As a direct and proximate result of Defendant's contributory infringement and
24 inducement of patent infringement by their customers and end users, Littelfuse has suffered and will
25 continue to suffer damages in an amount to be proven at trial.

26 46. Littelfuse has been irreparably harmed by these acts of patent infringement and will
27 continue to be harmed unless Adler and World Products' further acts of contributory infringement
28 and inducement of patent infringement are restrained and enjoined by order of this Court. Littelfuse

1 has no adequate remedy at law.

2 47. On information and belief, Adler and World Products' contributory infringement and
3 inducement of infringement have been and continue to be willful and deliberate because Adler and
4 World Products know, or are willfully and deliberately ignoring that each of their actions constitutes
5 contributory infringement or inducement of infringement of the '281 Patent, and/or is willfully and
6 deliberately ignoring an objectively high risk that each of its actions constitutes inducement of the
7 '281 Patent.

8 48. Because Adler and World Products' contributory infringement and inducement of
9 infringement is willful, Littelfuse is entitled to recover treble damages and attorneys' fees pursuant
10 to 35 U.S.C. §§ 284 and 285.

11 **RELIEF REQUESTED**

12 WHEREFORE plaintiff Littelfuse, Inc. requests a judgment in its favor and against
13 defendants Adler and World Products as follows:

- 14 A. That Defendants be adjudged to have directly infringed the '281 Patent, and that such
15 infringement has been willful and deliberate;
- 16 B. That Defendants be adjudged to have indirectly infringed the '281 Patent, and that
17 such indirect infringement has been willful and deliberate;
- 18 C. That Defendants and their officers, principals, agents, attorneys, servants,
19 employees, and all others in active concert or participation with them, and their
20 successors and assigns, be enjoined by preliminary and permanent injunction from
21 directly and indirectly infringing the '281 Patent, including but not limited to making,
22 using, distributing, selling, offering to sell, and importing the Accused Fuses into the
23 United States;
- 24 D. That Littelfuse be awarded damages, including, as appropriate, a reasonable royalty
25 and/or lost profits and price erosion damages under 35 U.S.C. § 284, adequate to
26 compensate it for Defendants' infringement of the '281 Patent, in an amount to be
27 proven at trial, together with interest and costs as fixed by the Court;
- 28

- 1 E. That Littelfuse be awarded treble damages under 35 U.S.C. § 284 for Defendants’
2 willful infringement;
- 3 F. That this case be declared an exceptional case within the meaning of 35 U.S.C. § 285
4 and that Littelfuse be awarded the attorneys’ fees, costs, and expenses that it incurs
5 prosecuting this action;
- 6 G. That Littelfuse be awarded prejudgment interest; and
- 7 H. That this Court award such other and further equitable relief as it deems proper.

8 **DEMAND FOR JURY TRIAL**

9 Littelfuse hereby demands trial by jury for all causes of action, claims, or issues in this
10 action that are triable as a matter of right to a jury.

11
12 Dated: November 13, 2023

FISH & RICHARDSON P.C.

13
14 By: /s/ Olivia T. Nguyen
15 Olivia T. Nguyen

16 Counsel for Plaintiff
17 LITTELFUSE, INC.