



US0D1120052S

(12) **United States Design Patent**  
**Dang**

(10) **Patent No.:** **US D1,120,052 S**  
(45) **Date of Patent:** **\*\* Mar. 24, 2026**

(54) **DRIVE UNIT FOR A PANEL LIFT DOOR**

(71) Applicant: **ECO Garage Doors Pty Ltd,**  
Dandenong South (AU)

(72) Inventor: **Toan Dang,** Dandenong South (AU)

(\*\*) Term: **15 Years**

(21) Appl. No.: **29/947,228**

(22) Filed: **Jun. 13, 2024**

(30) **Foreign Application Priority Data**

Dec. 22, 2023 (AU) ..... 202318769

(51) **LOC (15) Cl.** ..... **15-99**

(52) **U.S. Cl.**

USPC ..... **D15/148; D15/199**

(58) **Field of Classification Search**

USPC ..... D15/148, 199; D14/218; D13/162, 168,  
D13/170, 184, 199; D10/104.1

(Continued)

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D301,743 S \* 6/1989 Schremmer ..... D25/48.4  
D673,115 S \* 12/2012 Hoermann ..... D13/112

(Continued)

**OTHER PUBLICATIONS**

Eco garage doors Australia, (date posted Jun. 28, 2022), Eco 1000N Residential Sectional Garage Door Opener, Instagram, URL: (<https://www.instagram.com/p/CfX5jiksVZO/>), (Year: 2022).\*

*Primary Examiner* — Richard Edgar

*Assistant Examiner* — Cheng Chen

(74) *Attorney, Agent, or Firm* — Stonebridge IP, PLLC

(57) **CLAIM**

The ornamental design for a drive unit for a panel lift door as shown and described.

**DESCRIPTION**

FIG. 1 is a bottom view of a drive unit for a panel lift door in the closed configuration showing the claimed design.

FIG. 2 is a front perspective view from above of a drive unit for a panel lift door in the closed configuration showing the claimed design.

FIG. 3 is a front perspective view from below of a drive unit for panel lift door in the closed configuration showing the claimed design.

FIG. 4 is a front view of a drive unit for a panel lift door in the closed configuration showing the claimed design.

FIG. 5 is a rear perspective view from above of a drive unit for panel lift door in the closed configuration showing the claimed design.

FIG. 6 is a rear perspective view from below of a drive unit for a panel lift door in the closed configuration showing the claimed design.

FIG. 7 is a rear view of a drive unit for a panel lift door in the closed configuration showing the claimed design.

FIG. 8 is a side view of a drive unit for a panel lift door in the closed configuration showing the claimed design.

FIG. 9 is a side view of a drive unit for a panel lift door in the closed configuration showing the claimed design.

FIG. 10 is a top view of a drive unit for a panel lift door in the closed configuration showing the claimed design.

FIG. 11 is a bottom view of a drive unit for a panel lift door in the open configuration showing the claimed design.

FIG. 12 is a front perspective view from above of a drive unit for a panel lift door in the open configuration showing the claimed design.

FIG. 13 is a front perspective view from below of a drive unit for panel lift door in the open configuration showing the claimed design.

FIG. 14 is a front view of a drive unit for a panel lift door in the open configuration showing the claimed design.

FIG. 15 is a rear perspective view from above of a drive unit for panel lift door in the open configuration showing the claimed design.

(Continued)

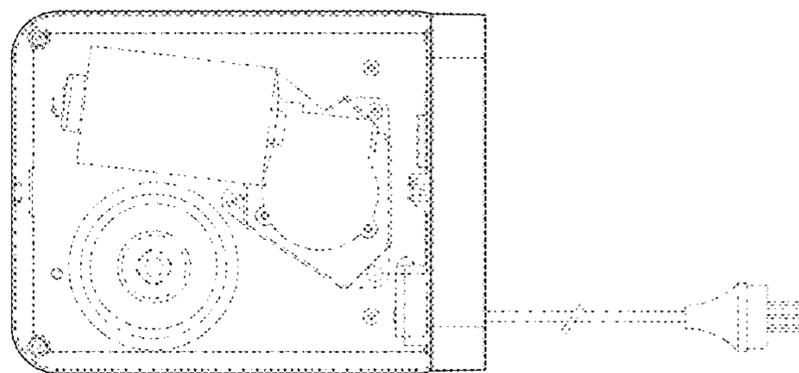
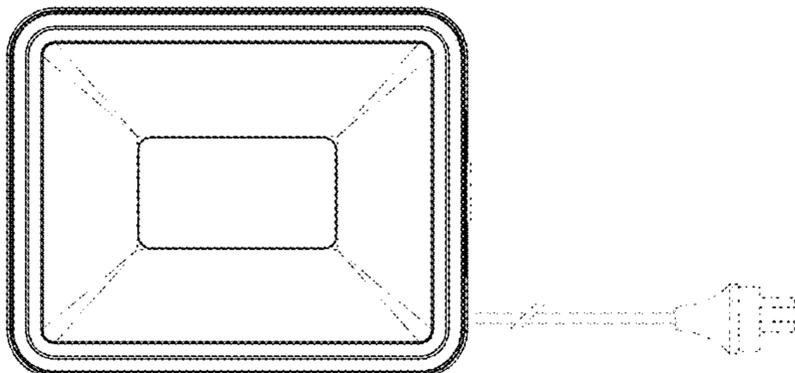


FIG. 16 is a rear perspective view from below of a drive unit for a panel lift door in the open configuration showing the claimed design.

FIG. 17 is a rear view of a drive unit for a panel lift door in the open configuration showing the claimed design.

FIG. 18 is a side view of a drive unit for a panel lift door in the open configuration showing the claimed design.

FIG. 19 is a side view of a drive unit for a panel lift door in the open configuration showing the claimed design; and,

FIG. 20 is a top view of a drive unit for a panel lift door in the open configuration showing the claimed design.

The broken lines in FIGS. 1-20 show portions of a drive unit for a panel lift door that form no part of the claimed design.

**1 Claim, 20 Drawing Sheets**

(58) **Field of Classification Search**

CPC .. F16H 57/025; H02K 11/0094; H02K 11/30;  
H02K 5/04; E05F 15/64; E05F 15/662;  
E05F 15/657; E05F 15/67; E05F 15/668;  
E05F 15/646

See application file for complete search history.

(56)

**References Cited**

U.S. PATENT DOCUMENTS

D673,116	S *	12/2012	Hoermann	.....	D13/112
8,464,468	B2 *	6/2013	Sommer	.....	E05F 15/67 49/358
D844,685	S *	4/2019	Bresson	.....	D13/168
D937,788	S *	12/2021	Doyle	.....	D13/184
D942,957	S *	2/2022	Larsen	.....	D13/162
D969,897	S *	11/2022	Norman	.....	D13/168
11,795,753	B1 *	10/2023	Ikeler	.....	E05F 15/60
D1,033,560	S *	7/2024	Nezu	.....	D21/333
D1,040,204	S *	8/2024	Tsai	.....	D15/199
D1,074,773	S *	5/2025	Abel	.....	D13/168
D1,077,759	S *	6/2025	Xu	.....	D13/168
D1,080,533	S *	6/2025	Gong	.....	D14/218
2005/0175401	A1 *	8/2005	Hoermann	.....	E05F 15/668 403/326
2007/0039243	A1 *	2/2007	Theile	.....	E05F 15/603 49/360
2007/0051537	A1 *	3/2007	Hoermann	.....	E05F 15/603 174/559
2017/0159345	A1 *	6/2017	Glanz	.....	F21V 3/062
2024/0383327	A1 *	11/2024	Ning	.....	E05F 15/652
2025/0003279	A1 *	1/2025	Yun	.....	E05F 15/646
2025/0211065	A1 *	6/2025	Dang	.....	F16H 57/025

\* cited by examiner

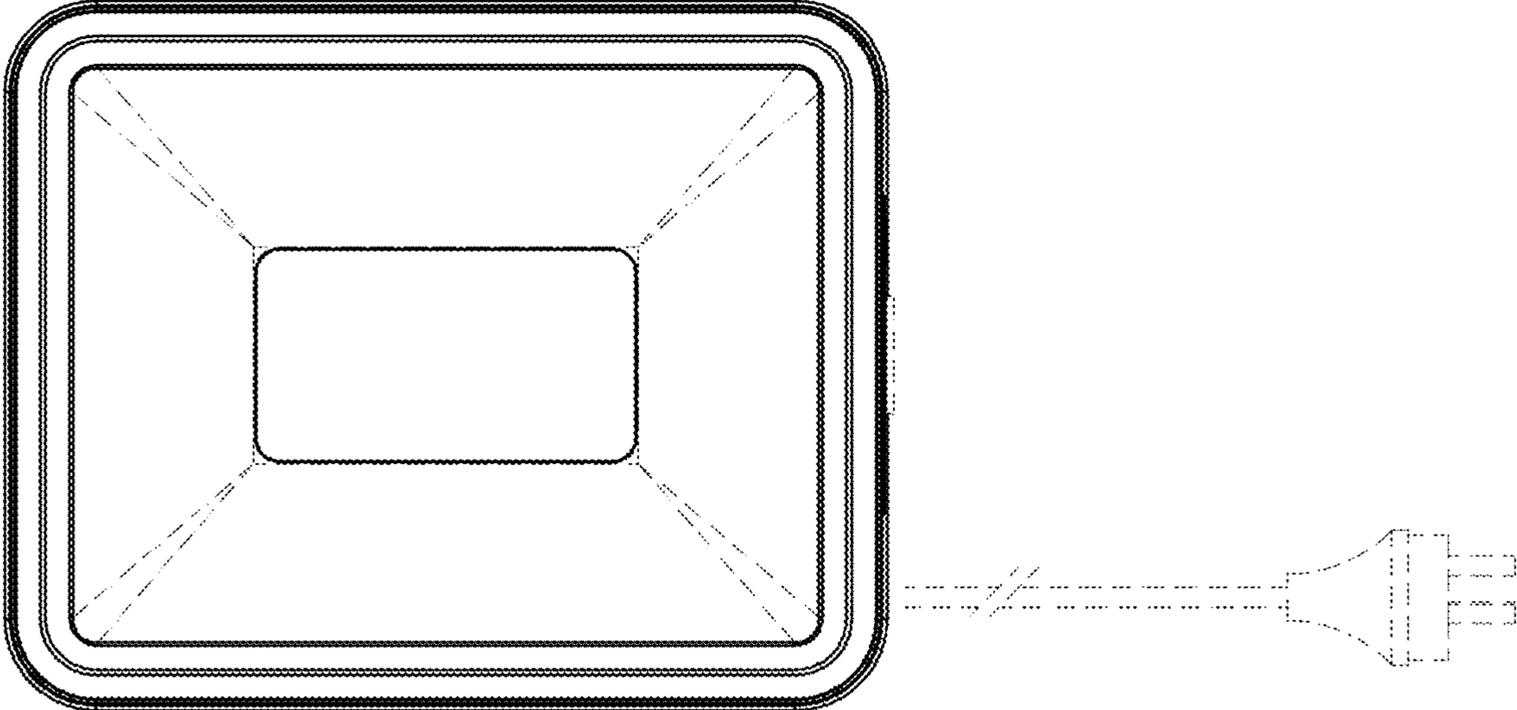


FIG 1

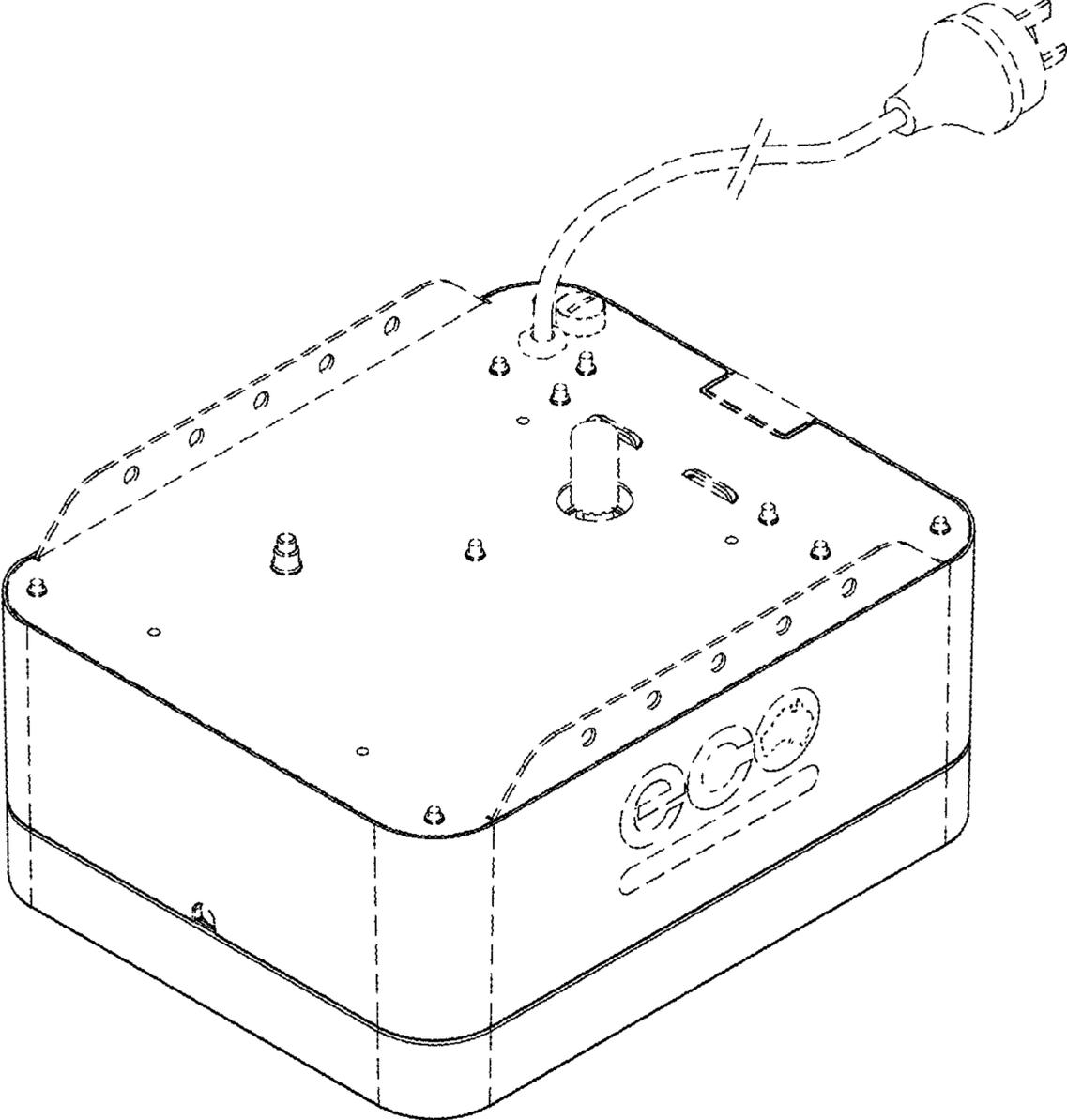


FIG 2

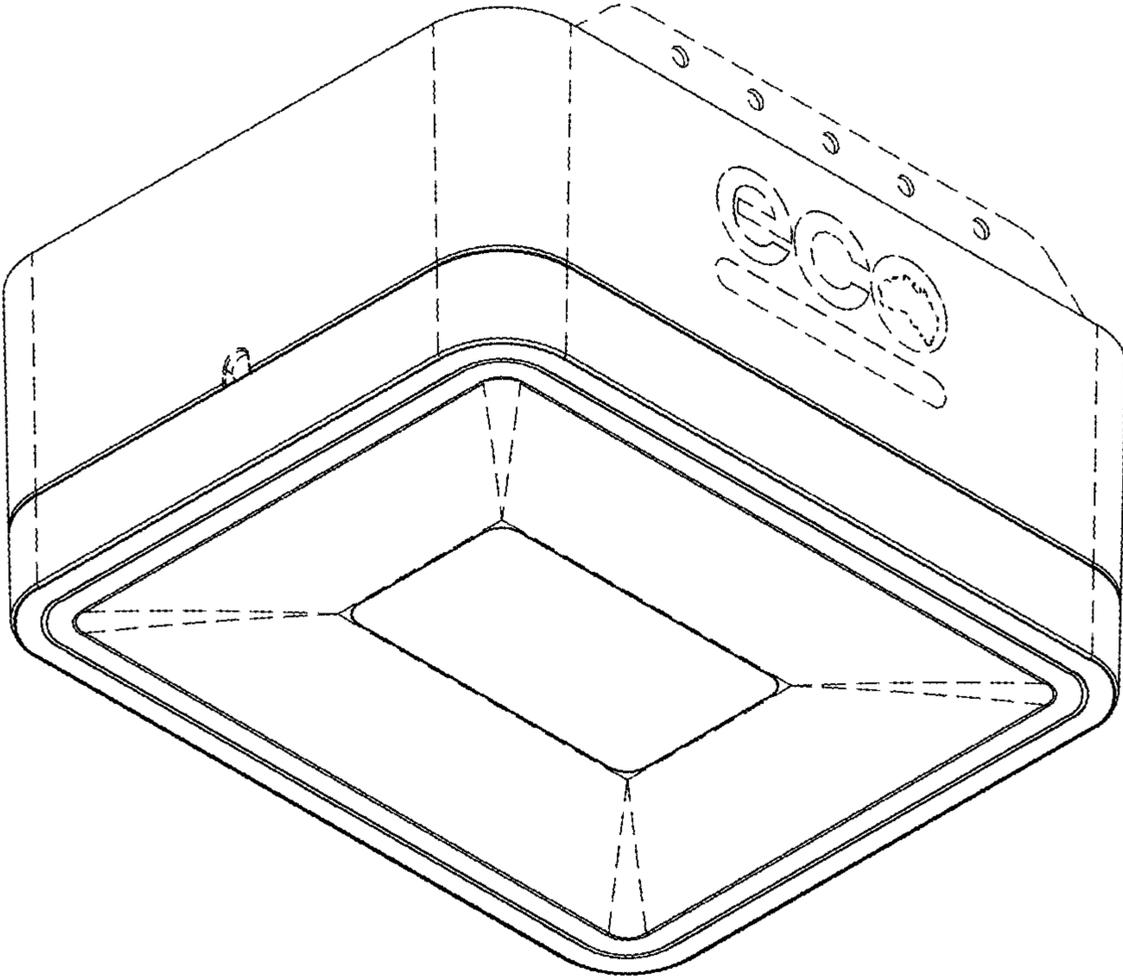


FIG 3

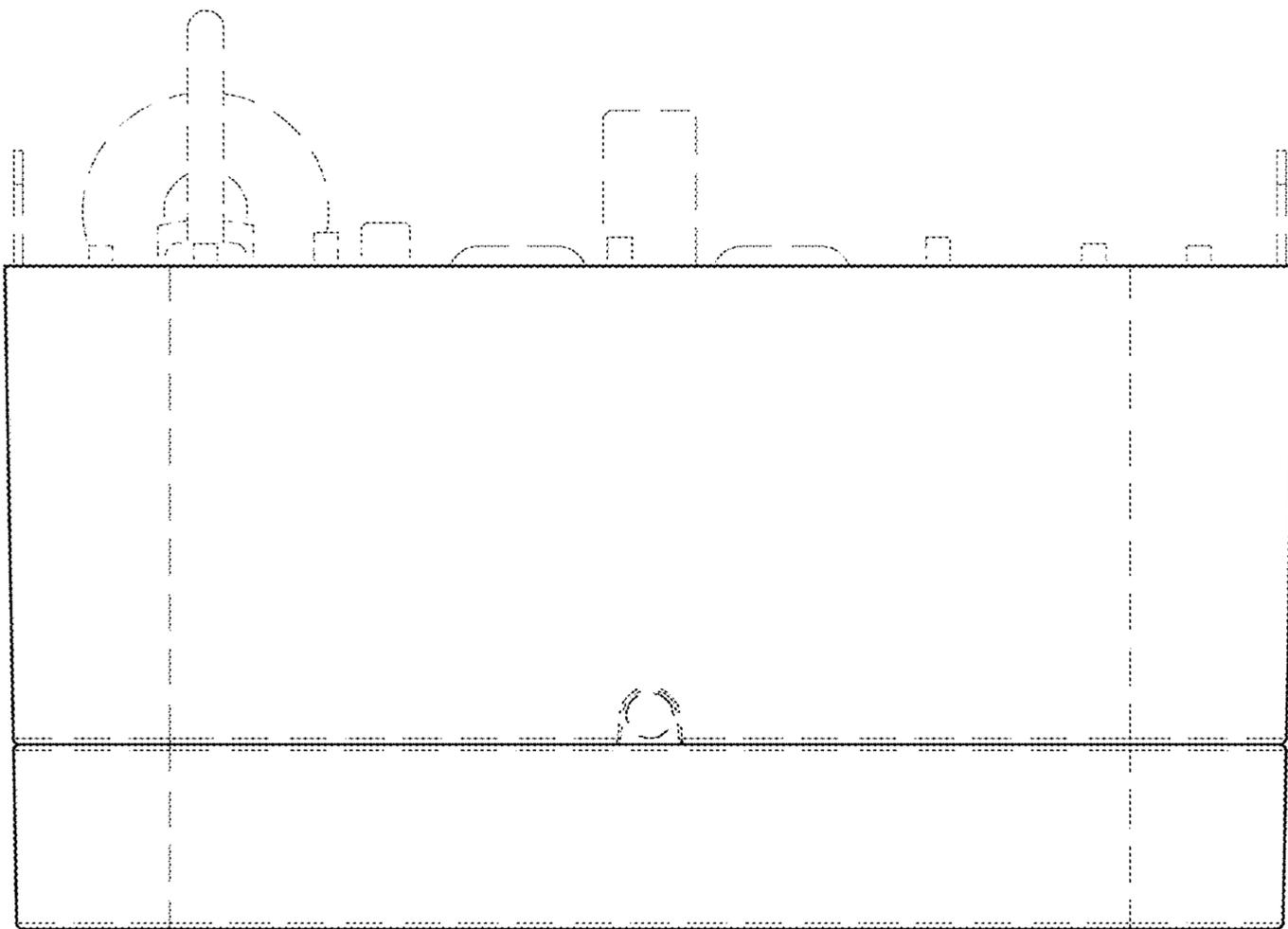


FIG 4

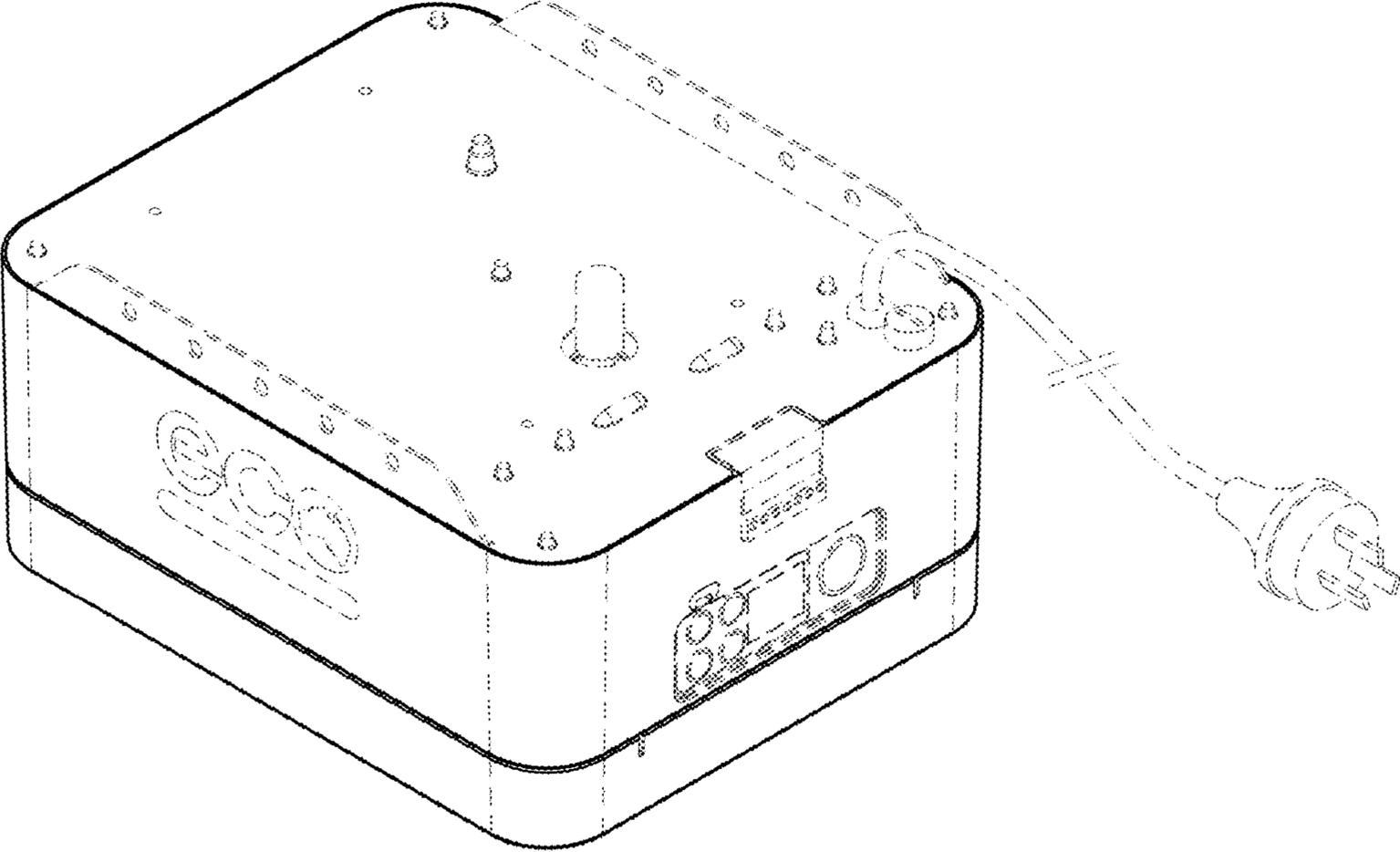


FIG 5

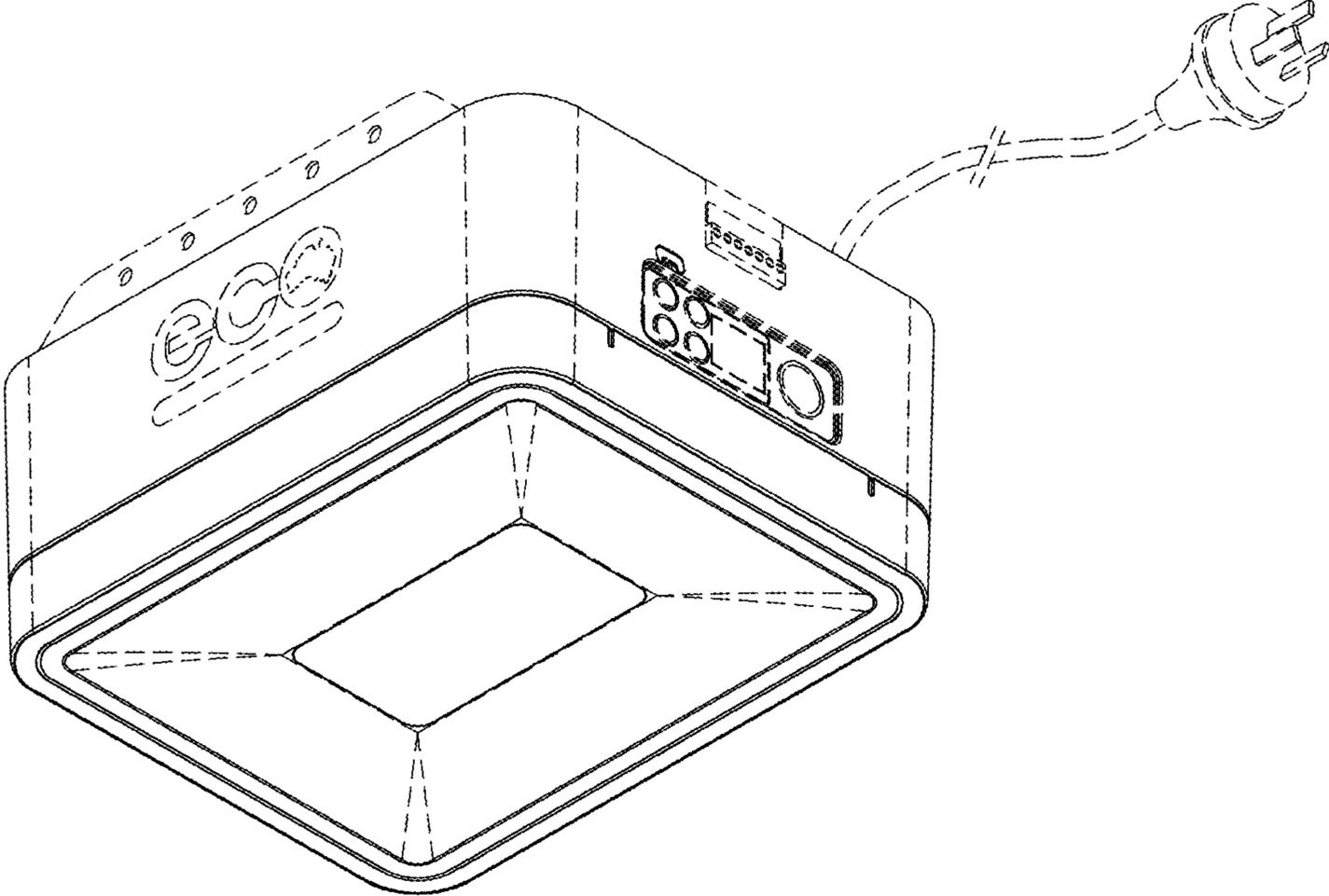


FIG 6

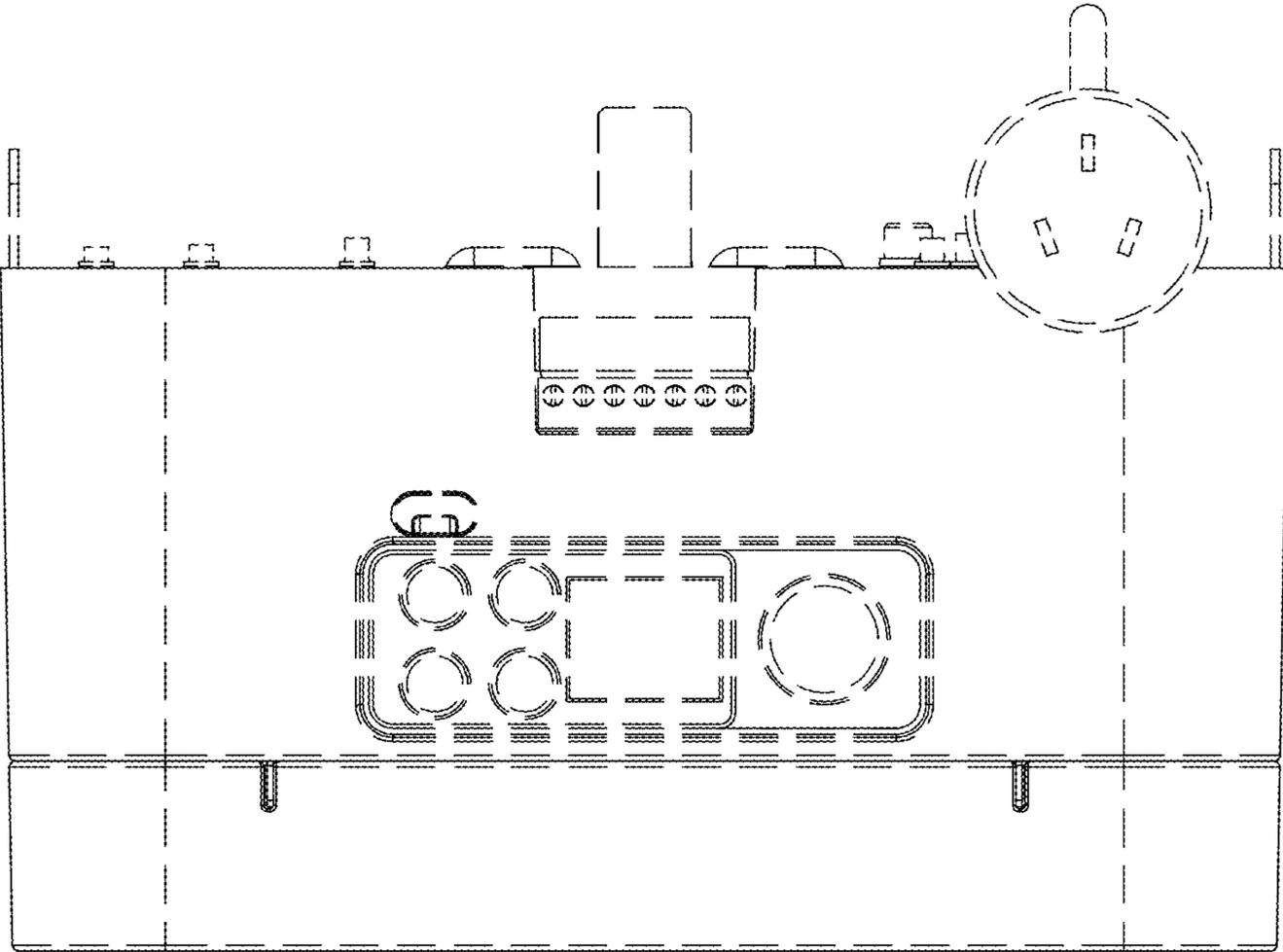


FIG 7

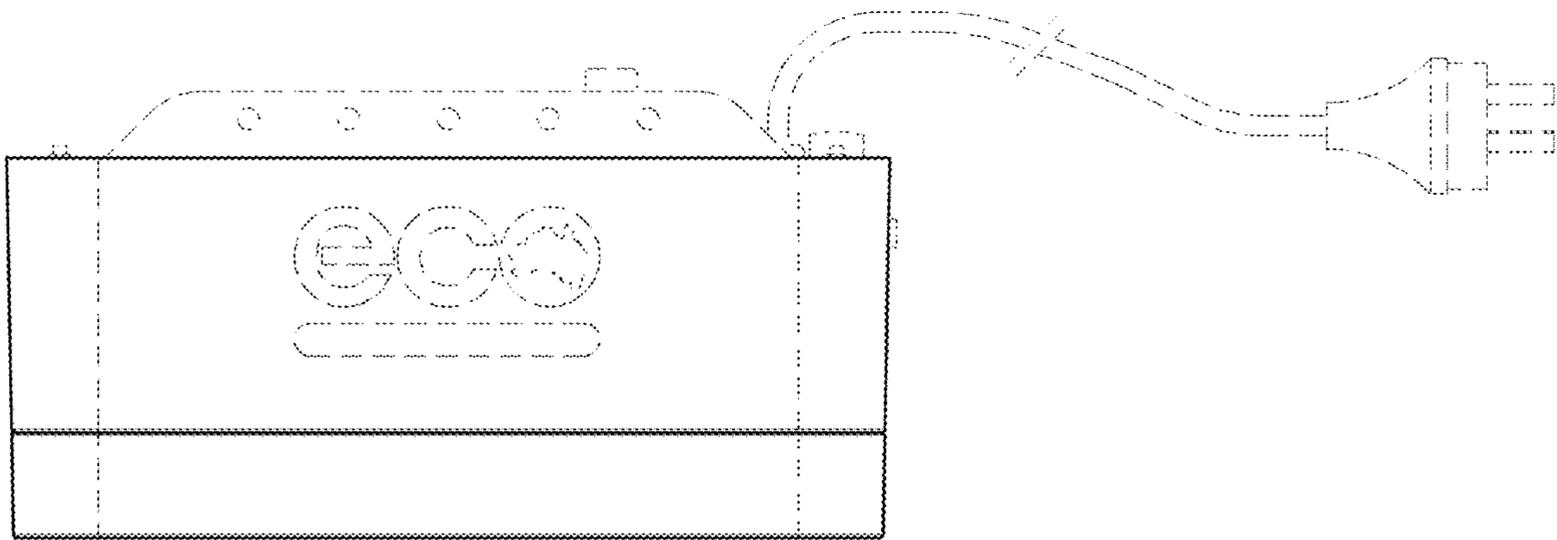


FIG 8

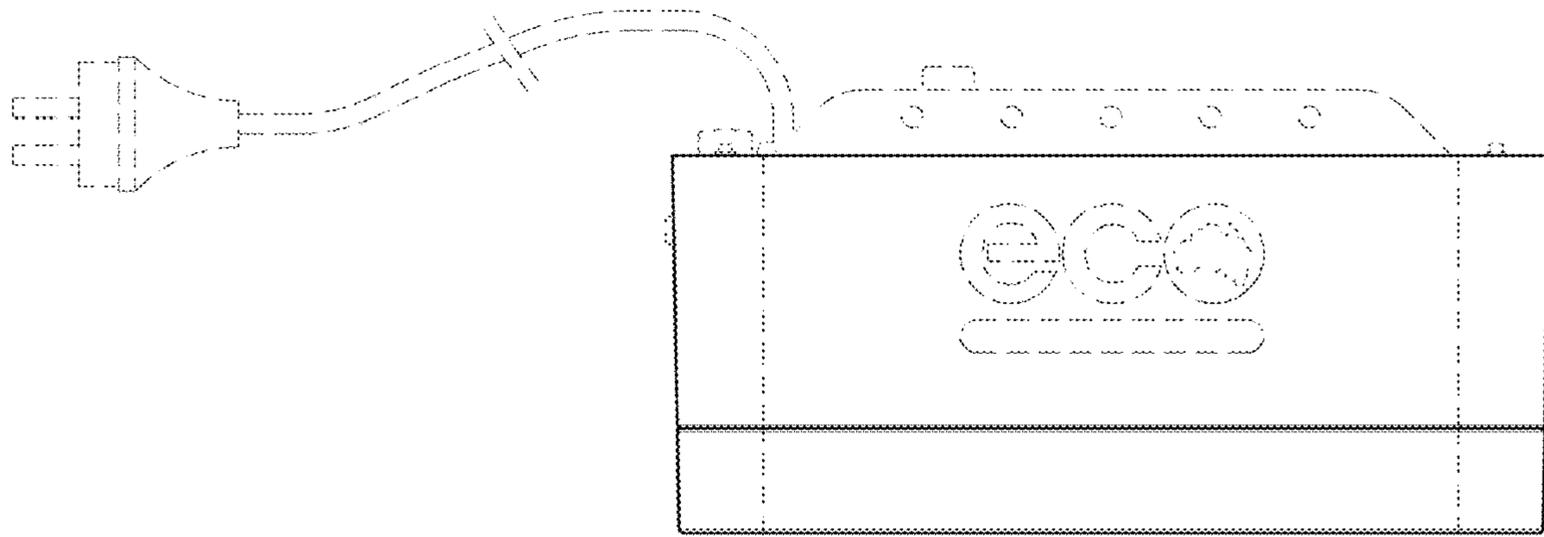


FIG 9

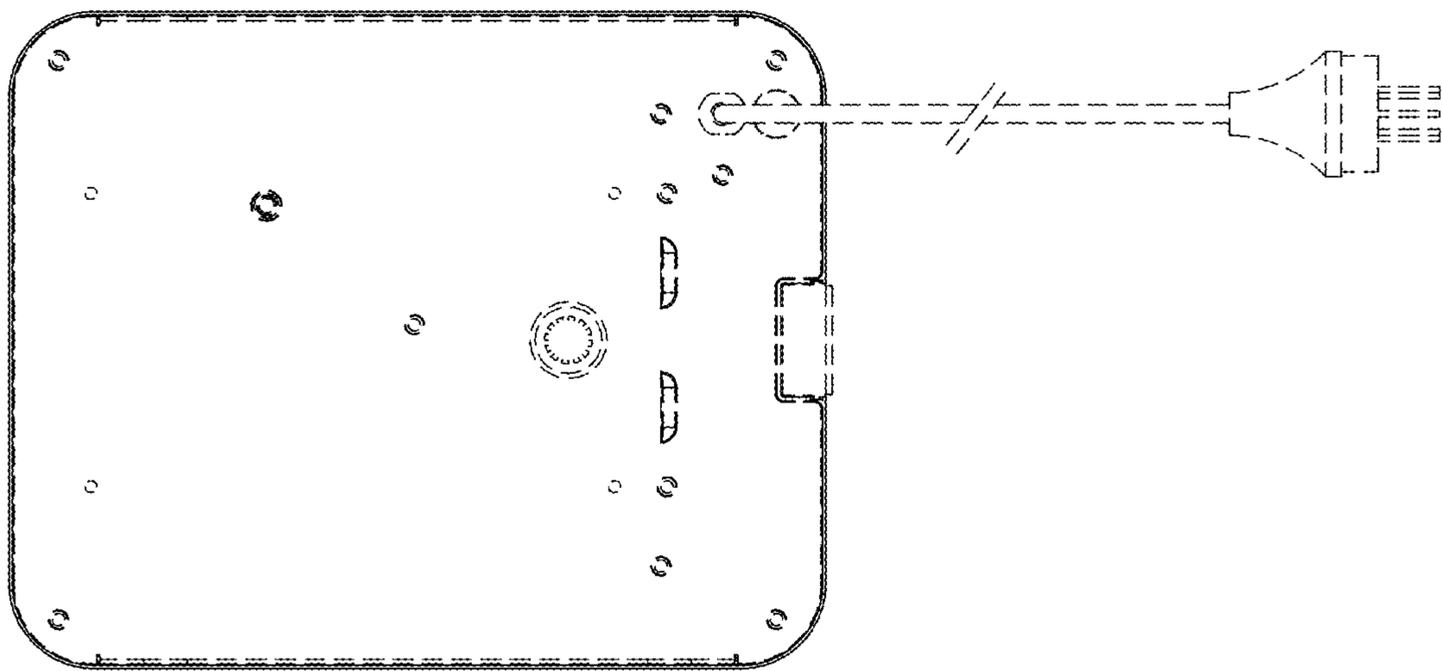


FIG 10

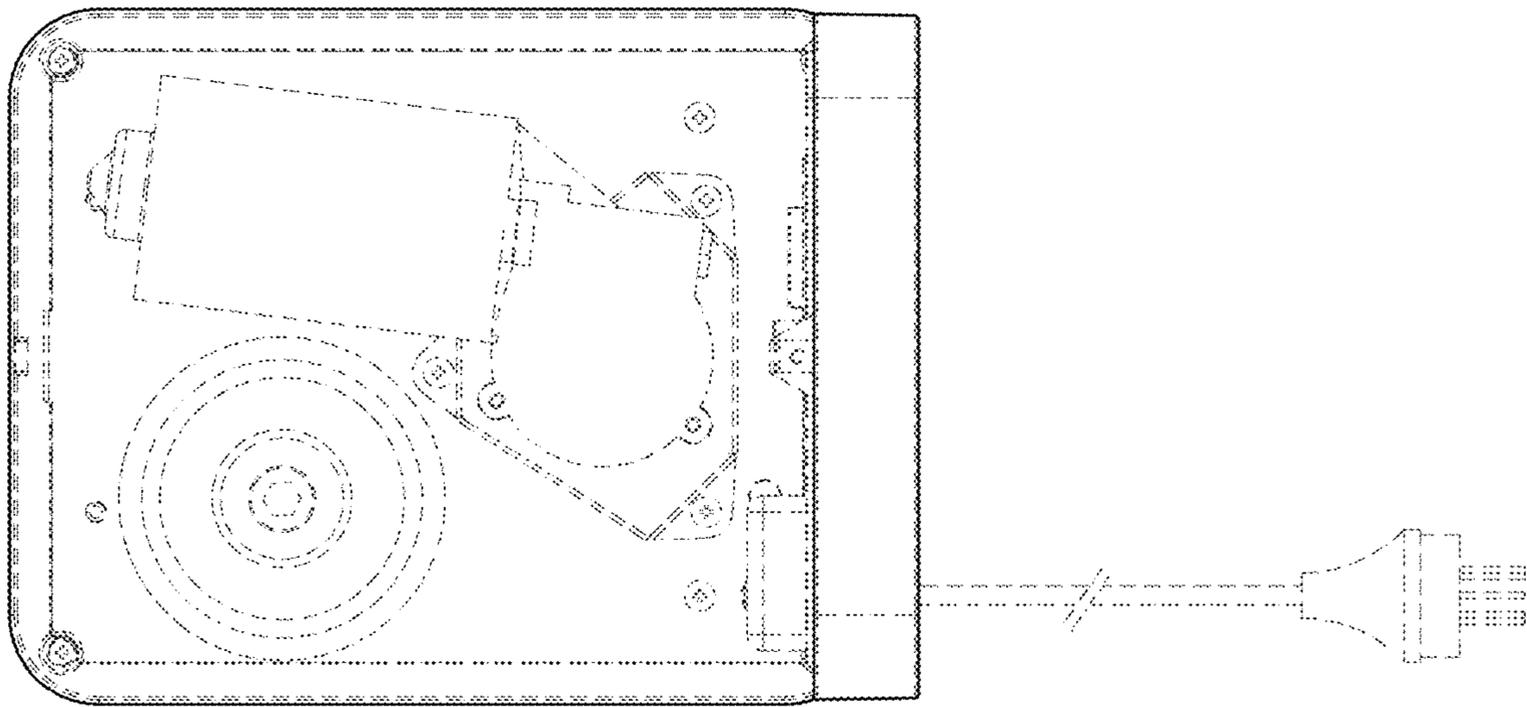


FIG 11

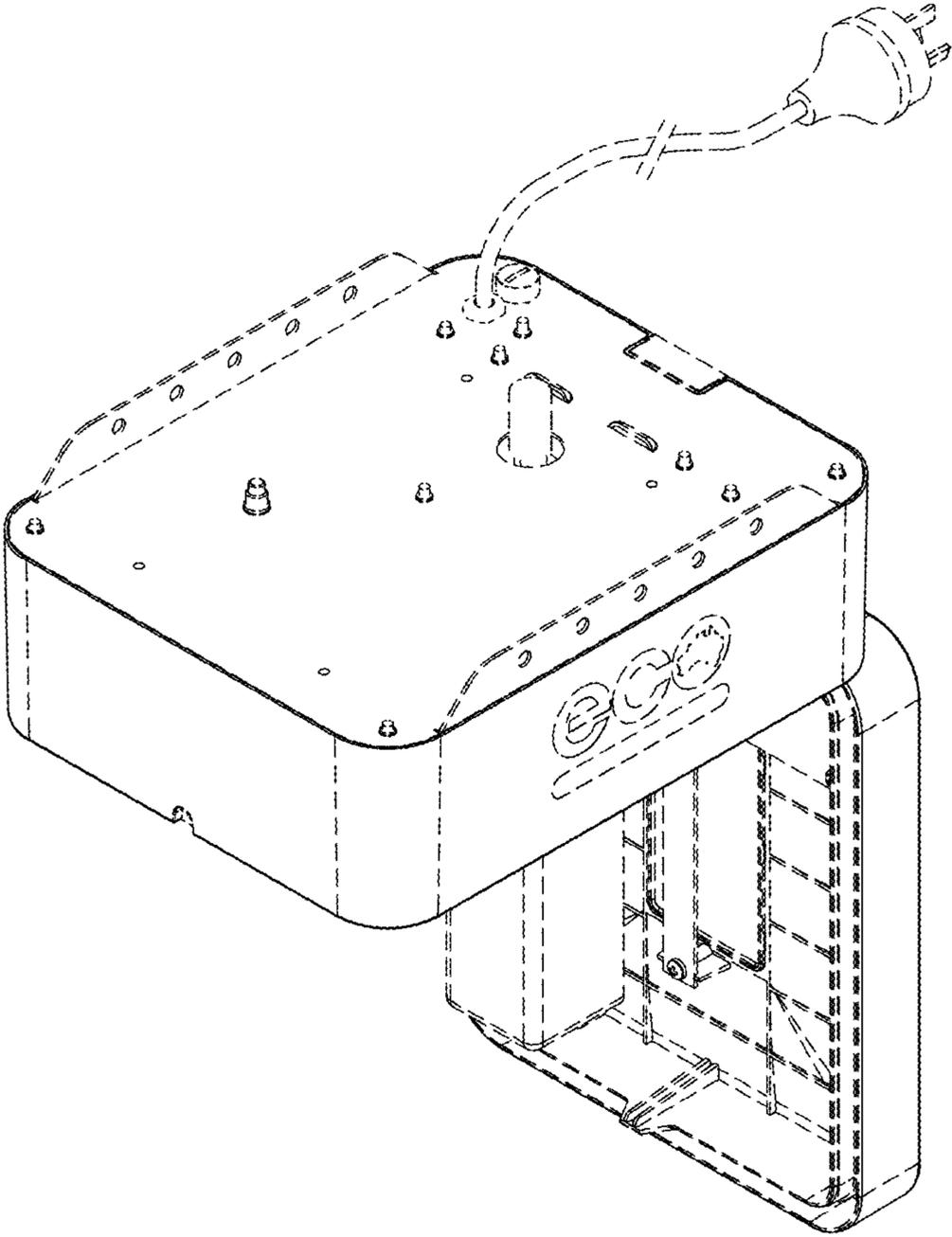


FIG 12

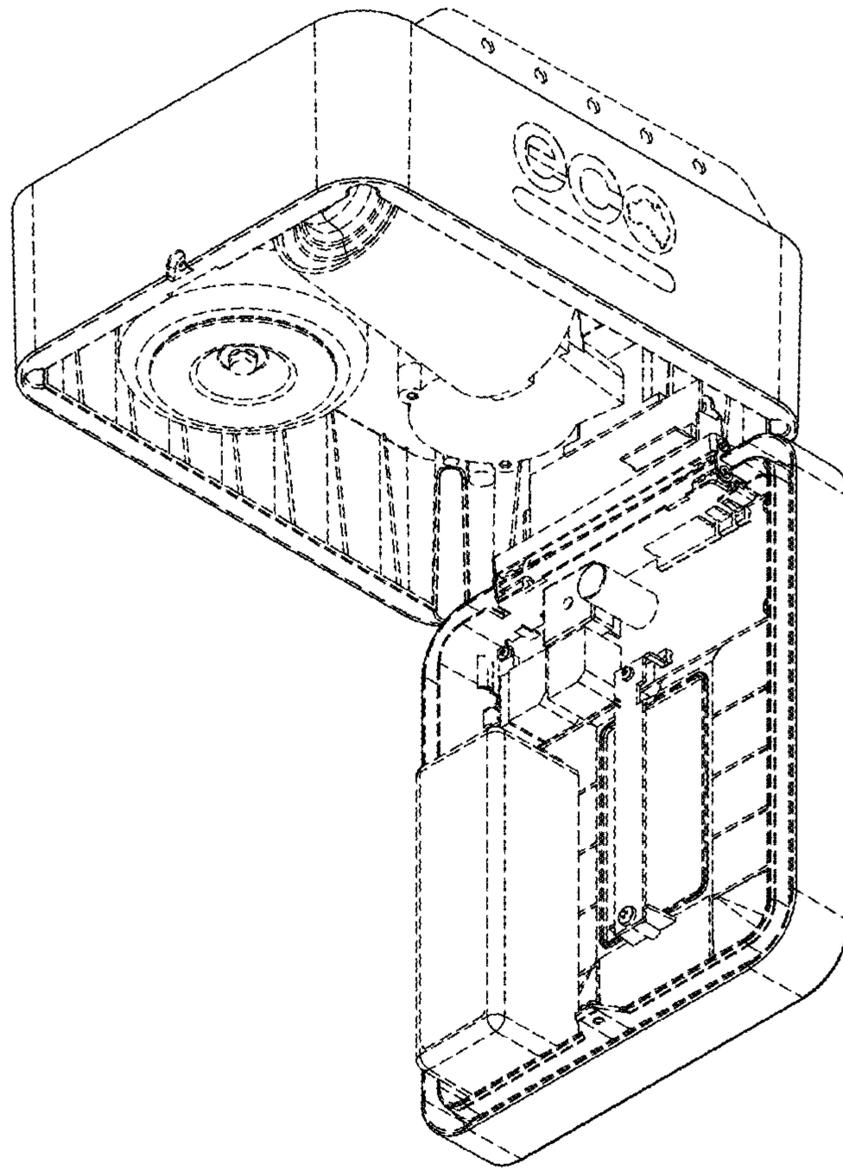


FIG 13

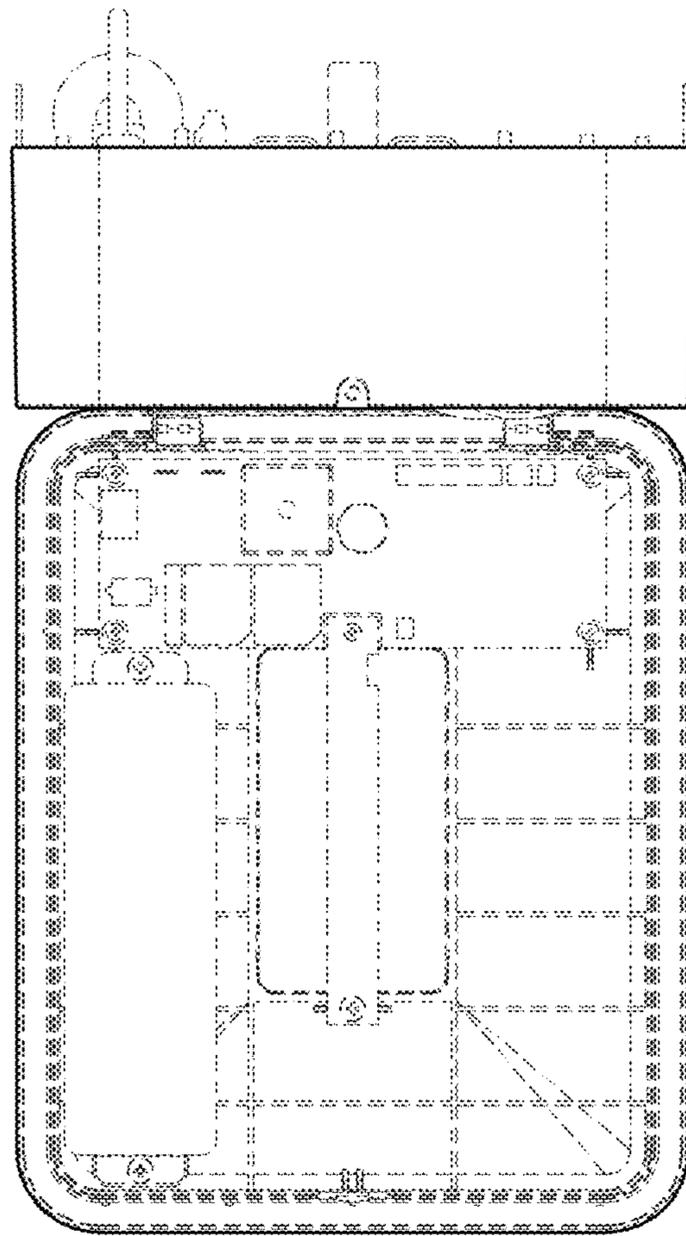


FIG 14

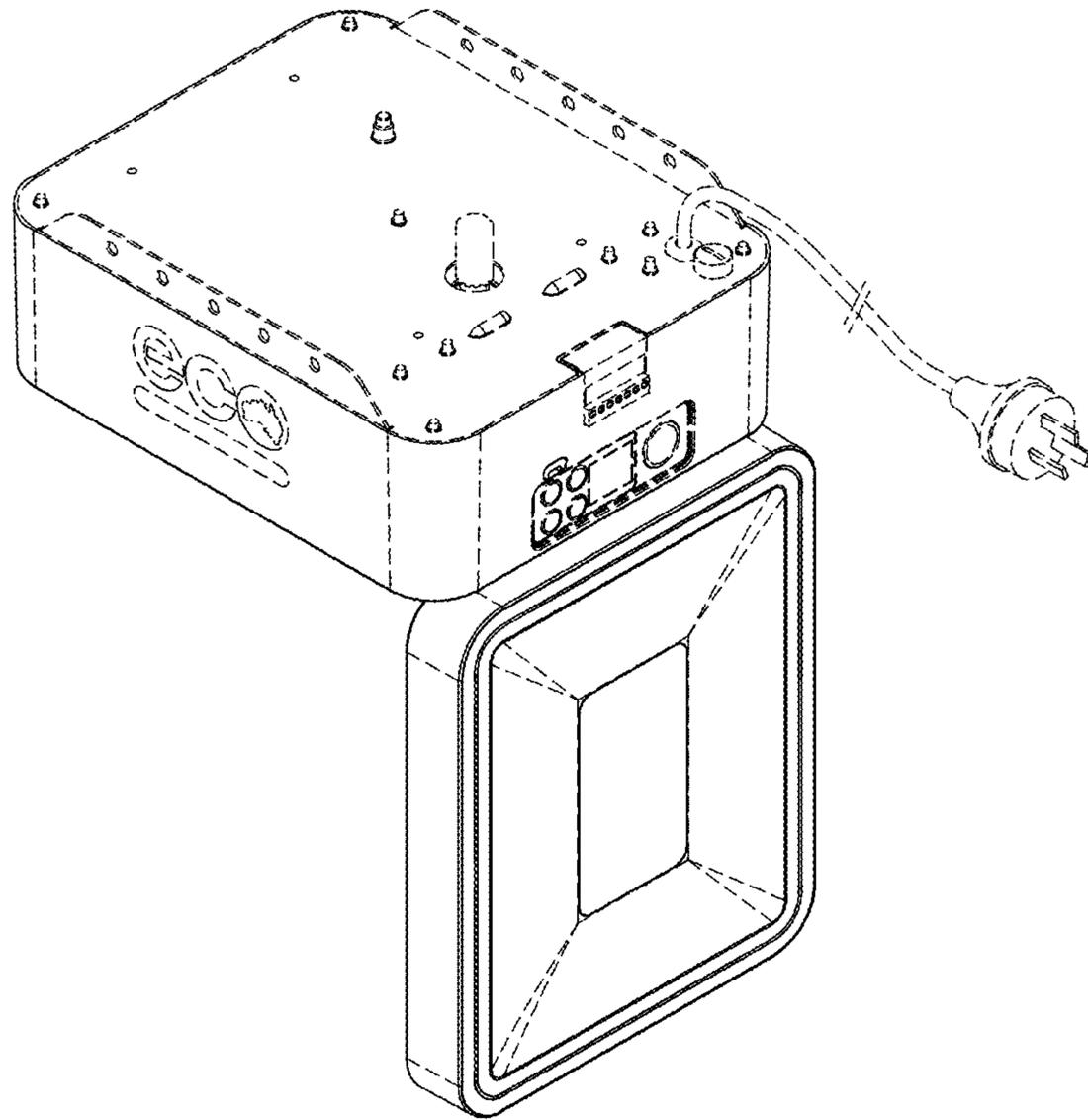


FIG 15

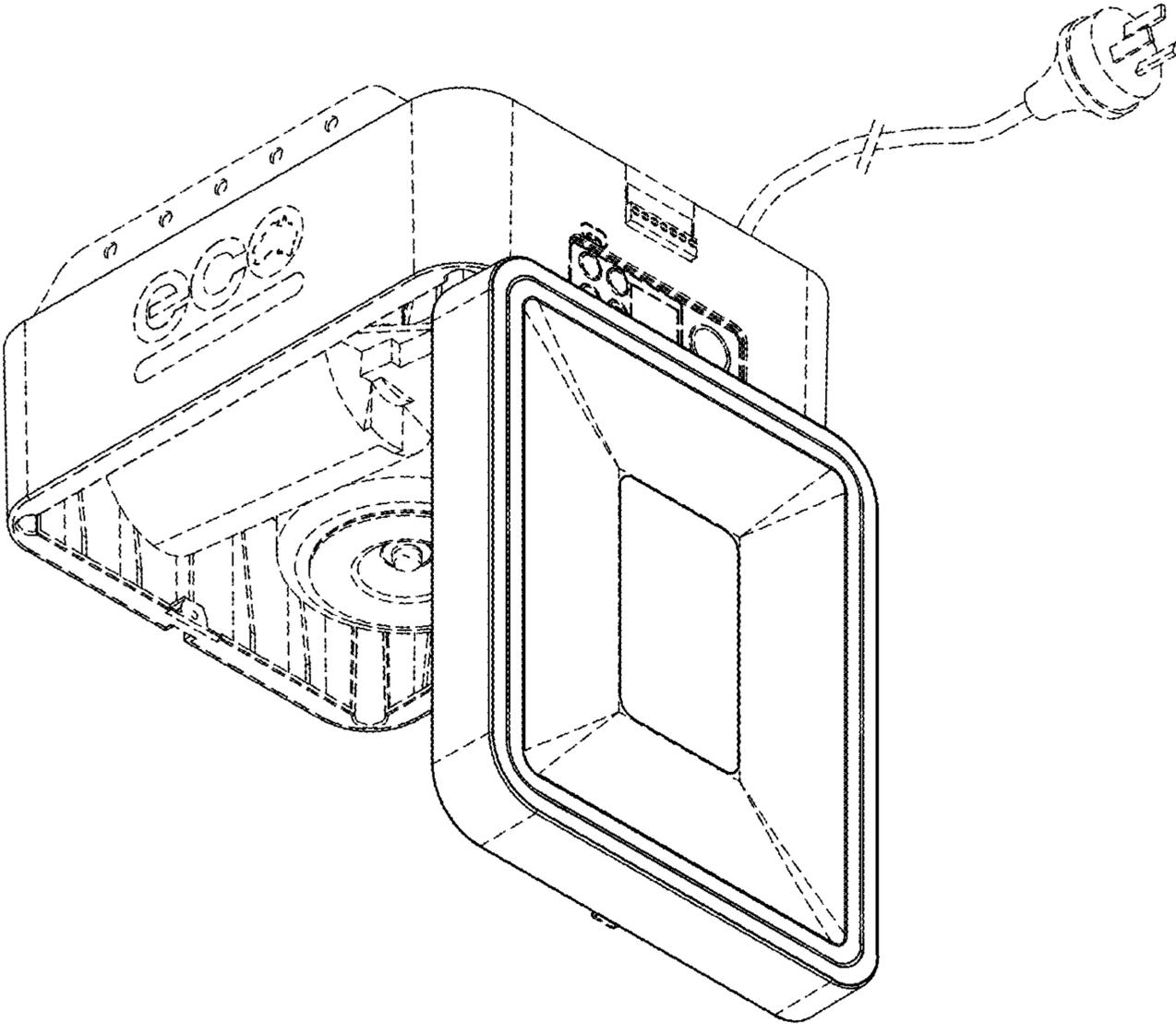


FIG 16

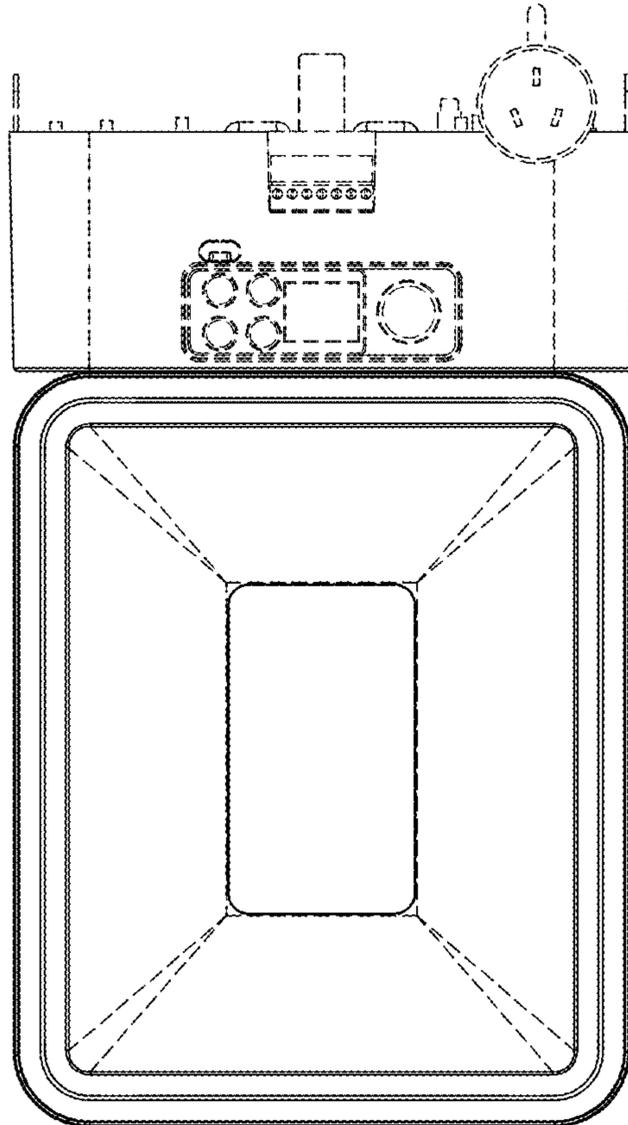


FIG 17

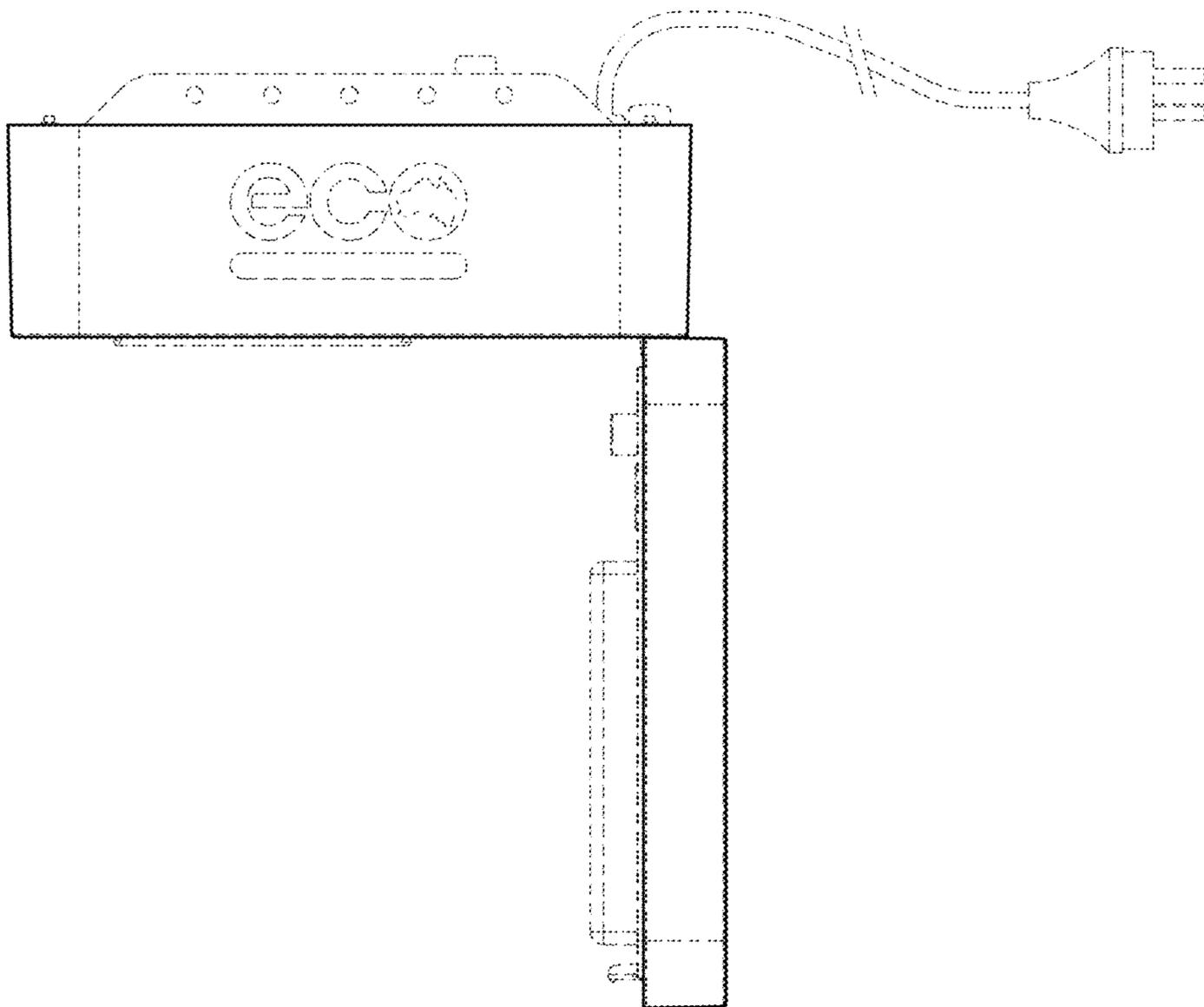


FIG 18

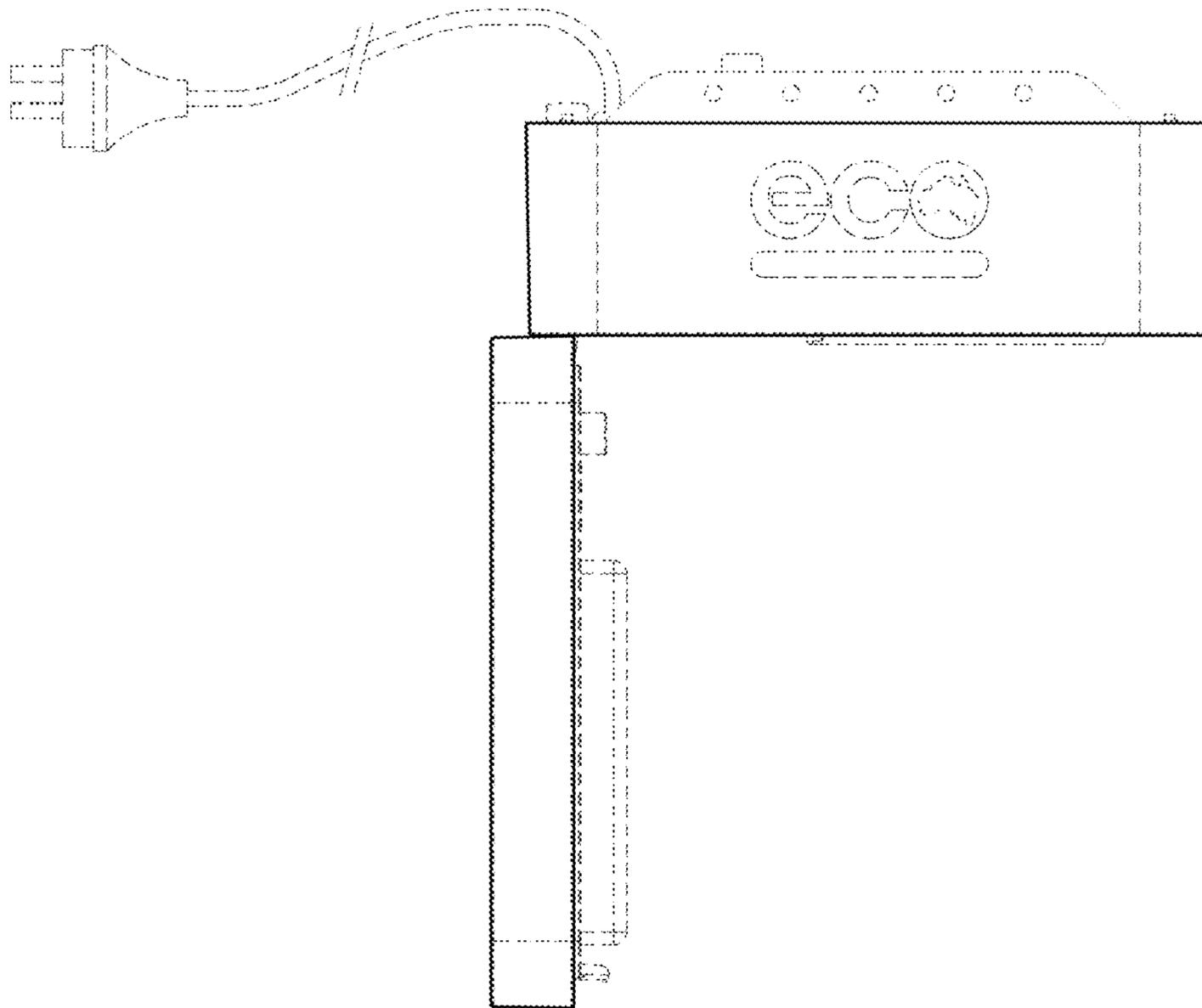


FIG 19

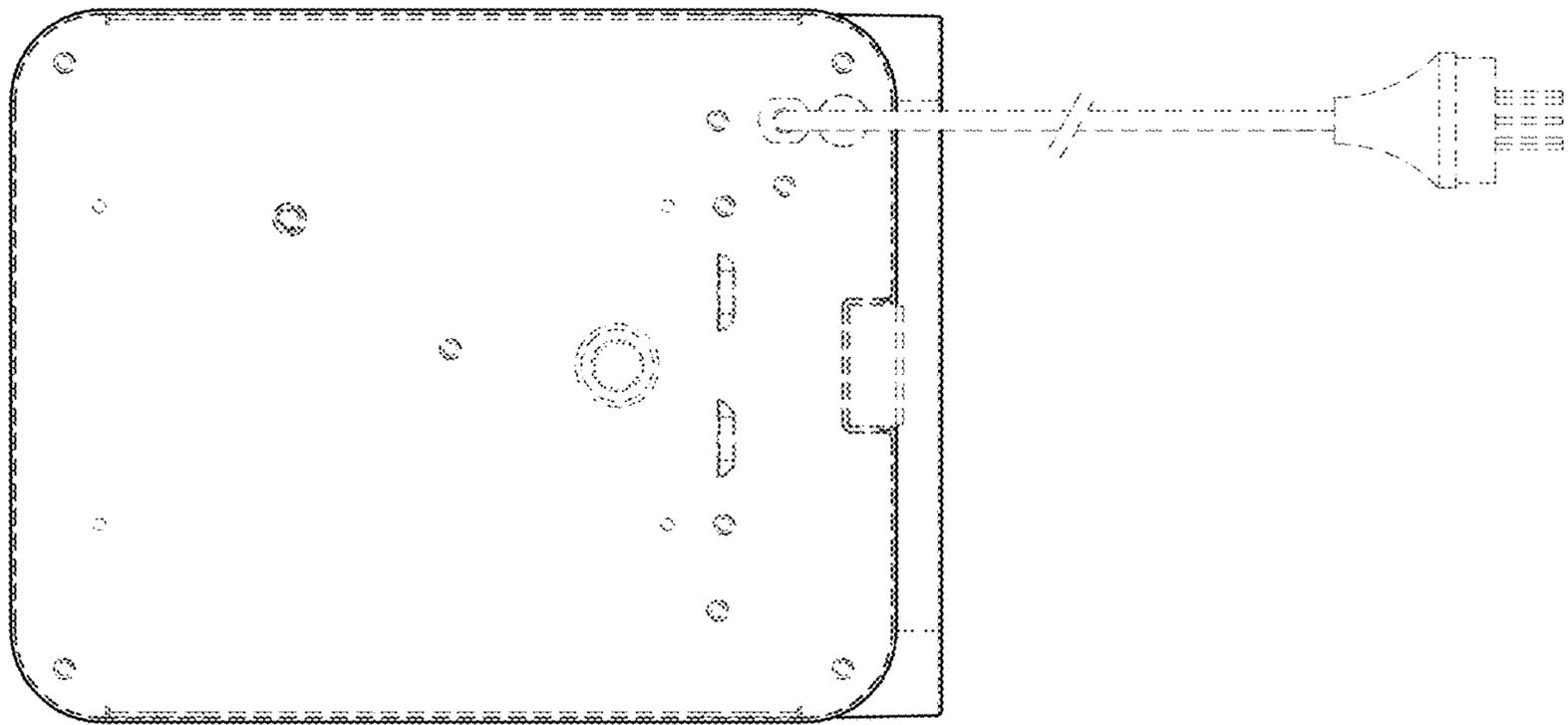


FIG 20