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Date: 4/1/2009
Revision Number: 3.0
Manual Number: 1.0

Revision Sheet

Revision Number	Date	Revision Description
1.0	4/1/2009	New Manual
2.0	8/1/2009	Revised the manual.
3.0	8/18/2009	Revised the manual.

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General Information

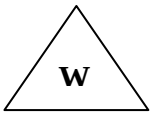
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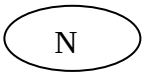
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Symbol Meanings



This symbol is used to alert you to procedures, instructions or situations, which, if not done properly, might result in personal injury or equipment damage.



This manual symbol is used to alert you to helpful information.

Introduction

This manual is intended to help facilitate the installation of Cablite lighting systems made by Electronic Controls, Inc. The audience of the material included in this manual is for the certified installation personnel. The Cablite lighting systems complies with modern performance specifications and meets or exceeds code requirements. Installation and adjustments must meet local and national codes.

System Overview

Cablite is a microprocessor controlled general downlighting system for use in elevator cabs operating from one to nine downlight assemblies. The system is equipped with lighting controls for brightness, dimming, standby (idle or sleeping cab), alarm, battery backup lighting and a protective cover.

Battery backup lighting & Signaling Capabilities are a Standard Feature. CabLite allows the selection of one or two lights from within the ceiling grouping, to operate in a battery backup lighting requirement. Maximizing the lighting over COP or COP'S within the cab; properly illuminating safety information, alarm and two way communication equipment which enhance overall passenger comfort.

- CabLite: Exceeds ANSI 17.1, Federal, State and City Codes.
- CabLite: Provides for Emergency signaling through 100 decibel Piezo alarm meeting all current alarm requirements.

A CabLite- Kit, consist of the following components:

- Main Control Unit
- Cabling for 1- 9 downlight assemblies.
- Downlight assemblies for 1- 9.
- Piezo Alarm
- Protective cover

Points of Contact

Information

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Installation

Step 1

Placement of Selection of Lights and main Control

- Select desired location for mounting of Cablite Main Control Unit. Recommended mounting place for the main control unit is either behind car operating panel, above the false ceiling or on the car top.

N

The protective cover must be installed over the main control unit in all (any) of the possible (selected) installation areas. AC wiring must be routed through stress relief securing fastener and securely fasten. All Low voltage wiring (downlight cabling) must be routed through the 1.5" grommet protected access hole in protective cover. Protective Cover must be securely fastened over main control unit utilizing the four mounting holes with the appropriate mounting hardware for desired location (as indicated in step 4)

- Fasten or secure main control box with appropriate mounting hardware for desired location; utilizing all four mounting holes in main control unit.
- Ceiling Panel Desired Layout: Select and mark ceiling panel for architectural uniformity of downlight positioning; Downlights may be arranged in any format, utilizing patterns or sets of 2 or 3 or any other combination.

N

Although, the number of downlights (lighting) in a ceiling grouping is a personal preference. ANSI (Commercial Elevator Code) requires a minimum luminous for lighting. In order to meet code requirements a minimum installation of six (6) downlights is recommended for a standard 2500# commercial elevator cab and eight (8) downlights are recommended for a larger 4200# cab.

- Drill the appropriately marked holes utilizing a 2-3/4" hole saw for the downlight fixture assembly to install through.
- Install downlights into ceiling panel; insert assembly through panel and securely tighten lock nut.

Step 2

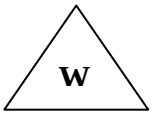
Connecting Cables & Wiring

- Cable(s) 12' low voltage cables are provided to connect main control unit lighting channels (connectors) to lead downlight. One 12' cable is provided and required for operation of one to three downlights from the main control. Route the 12' cables from main control box to lead downlight inserting (plugging-in) the appropriate male to female connectors at both the main control and lead downlight.
- 4' cables are provided for linking the lead downlight to the second and third downlight in the string.
- Connect all cabling as appropriated for the number of downlights.

N

Identify appropriate male to female connectors: Main control and downlight cabling are connected utilizing the appropriate male to female connectors.

- Route the incoming AC power and low voltage cabling though the protective cover as indicated. AC wiring must be routed through stress relief securing fastener so it can be securely fasten. Low voltage wiring must be routed through the grommet protected access hole.
- Connect AC voltage from desired power source utilizing (connecting) line, common and ground wires.



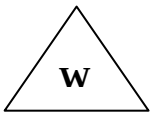
Securely fasten all AC power lines and verify earth ground.

Step 3
AC Power

- Turn unit "On"- Selection of bottom dip switch to ON position. Verify light operation or see trouble shooting
- Make appropriate dip switch selections for desired downlights to act in a battery backup lighting situation. Once selected the test button can be pushed to verify light selection.
- Verify battery backup light operation or see trouble shooting.

Step 4
Installing Protective Cover

- Secure AC wiring (tighten screws) at wire strain relief fastener. Low voltage wiring must be routed through the grommet protected access hole. Securely fastened protective cover over main control unit utilizing the four mounting holes with the appropriate mounting hardware for desired location



Protective cover must be installed for completed installation

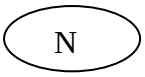
Definitions of the Cablite
LED Indicators on Main Control Unit

Power: Blinks during start up; then stays on.
Charging: On when batteries are charging.
Battery Full: Comes on when batteries are fully charged.
Battery Fault: Battery problems.

Battery Backup Light: On during battery backup light operation.
Battery Backup Light Fault: More than two dip switches are on for battery backup lights.
Dimming: On when standby input is activated.

Potentiometers

Brightness: Sets maximum light output for general illumination.
Dim Level: Sets the dimmed light output for standby illumination.



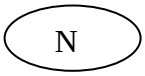
Turn pots clockwise to increase; counterclockwise to decrease

Dip Switches

All Switches: On is down to the right.
Off is down to the left.
Lights 1 thru 9: Select the one or two lights for battery backup light operations by switching to the on.
Master/Slave: Not Recommended
On/Off: Turns on and off the power.

Test Button

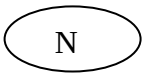
Push to test battery backup light operation.



Testing of battery backup lighting operation should be verified by removing all AC power at power source.

Fault Relay

The Fault Relay is an Active Circuit.



Active State- No Fault. Inactive State-A fault including loss of power.

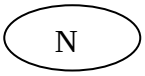
Electrical Hookup

Screw Terminals

1 GND – Earth Ground
2 N – 120VAC Neutral
3 L – 120VAC Hot
4 Fault Normally Open Contact Output
5 Fault Common
6 Fault Normally Closed Contact Output
7 Standby Input
8 Standby Input; (Closing a contact from 7 to 8 enables standby operation for dimming)
9 Piezo Input
10 Piezo Input; (Closing a contact from 9 to 10 activates piezo alarm)
11 Piezo Plus; (Red)
12 Piezo Minus; (Black)

Connector Hookup

COM Port- Not applicable or Available

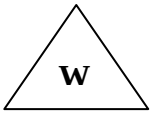


Before plugging any cables in, verify the correct pins in the connectors, male to female only. Not all connectors have 6 pins.

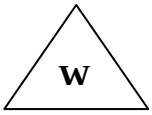
CH1-3 Cable for lights 1, 2 and 3
CH4-6 Cable for lights 4, 5 and 6
CH7-9 Cable for lights 7, 8 and 9

Battery Information

Battery type: 5000 mA/h NIMH C Battery



On/Off dip switch setting must remain in the off position until the A/C power source is connected in order to prevent damage to the batteries.



Batteries can only be replaced by 5000 mA/h, Nickel-Metal Hydride batteries size C 1.2V. ECI part number ECIA023.00007543. Use of any other battery can damage unit and will void warranty.

Trouble Shooting

No lights on main control unit

- Check incoming power to the controller.
- Check status of the batteries.

Battery Backup Fault Light

- More than two downlight dip switches are on.

Battery Fault Light

- Check the batteries are installed correctly.
- Replace batteries if needed.

Downlight Assembly fixtures not on 1-3

- Check wiring harness.
- Check incoming power.

Downlight Assembly fixtures not on 4-6

- Check wiring harness.
- Check incoming power.

Downlight Assembly fixtures not on 7-9

- Check wiring harness.
- Check incoming power.

Lights to Bright

- Turn pot counterclockwise to decrease the brightness level.

Lights to Dim

- Turn pot clockwise to increase the brightness level.

CabLite-Technical Specification:

Main Controller Unit: ECI045.00007780
Outputs: 9 (3x3)
Output voltage range: 9-12/.35A/4.2W (9x)
Output current: 350mA
Brightness control: 5...100% of output power
Dimming control: 10...95% of brightness
Standby input: dry contact, 7.5V, 10mA
Piezo output: 12V/40mA
Piezo control input: dry contact, 5V, 200mA
Fault output: relay form C contact, 120V/1A

Downlight 6300K Bright White: ECI045.00007755
Number of LEDs: 3
Color temperature: 6300K
Light output: 240lm typ. @ 6300K
Operating voltage: 10.5VDC
Operating current: 350mA
Power consumption: 3.7W

Downlight 3000K Warm White: ECI045.00007897
Number of LEDs: 3
Color temperature: 3000K
Light output: 159lm typ. @ 3000K
Operating voltage: 10.5VDC
Operating current: 350mA
Power consumption: 3.7W

Warranty Policy

Electronic Controls, Inc warrants this product to be free from manufacturing and workmanship defects under normal use for a period of twelve months (12) from the date on which the product was shipped. In the event this product or any other component part is found to be defective within the warranty period, the purchaser must notify Electronic Controls, Inc within the warranty period and the product or component must be returned to Electronic Controls, Inc within thirty (30) days after notice of the warranty claim.

Electronic Controls, Inc entire liability under this warranty and the purchaser's exclusive remedy shall in sole discretion of Electronic Controls, Inc be either of the following:

Replacement of the defective product or defective component part. (Or) Repair the defective product or the component part.

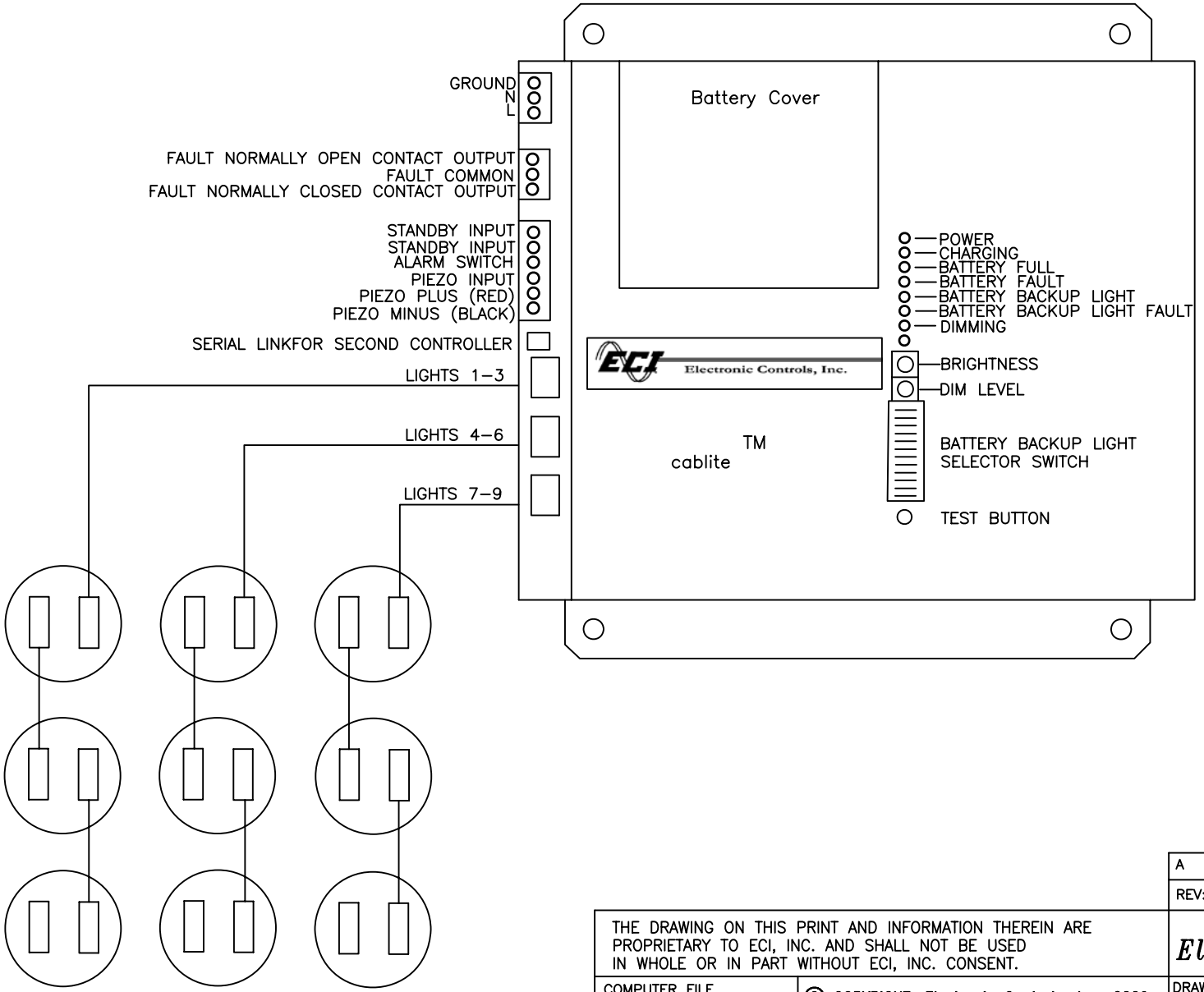
This limited warranty does not extend to any labor or other expense incurred by the purchaser and only covers the repair or replacement of the product or component part supplied by Electronic Controls. Any misuse or unauthorized service of the product or any of the component parts shall render this warranty null and void.

In no event will Electronic Controls, Inc be liable for any damages, including but not limited to, any lost profits, lost savings or other incidental or consequential damages arising out of the use or inability to use the product. Some states do not allow the limitation or exclusion of liability for incidental or consequential damages, so the above limitation or exclusion may not apply to all purchasers.

Foregoing limited warranty is the sole warranty given by Electronic Controls, Inc and all other warranties, expressed or implied, included but not limited to, the implied warranties of merchantability and fitness for a particular purpose are excluded. Some states do not allow the exclusion of implied warranties so the above may not apply.

Extension of Limited Warranty of Specified Component Part:

An extension of warranty is granted to the purchaser on Cablite's "LED Downlight Assembly" to be free of defects in manufacturing and workmanship for a period of five (5) years from date of shipment or for an additional four (4) years beyond the general one (1) year limited warranty period. All other provisions and remedy remain applicable as herewith written in the limited warranty. The limited warranty and extension of limited warranty will be voided if the following happens, replacing the backup batteries with an incorrect type other than with Electronic Controls, Inc specified batteries.

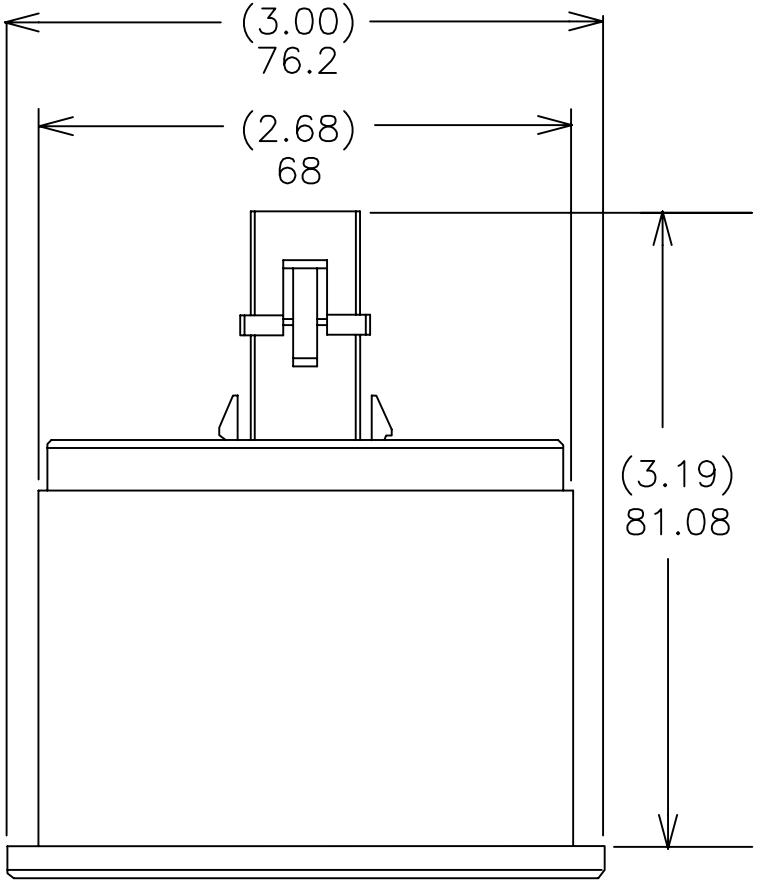


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RECOMMENDED MOUNTING
HOLE SIZE: 2.75”

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Downlite Assembly

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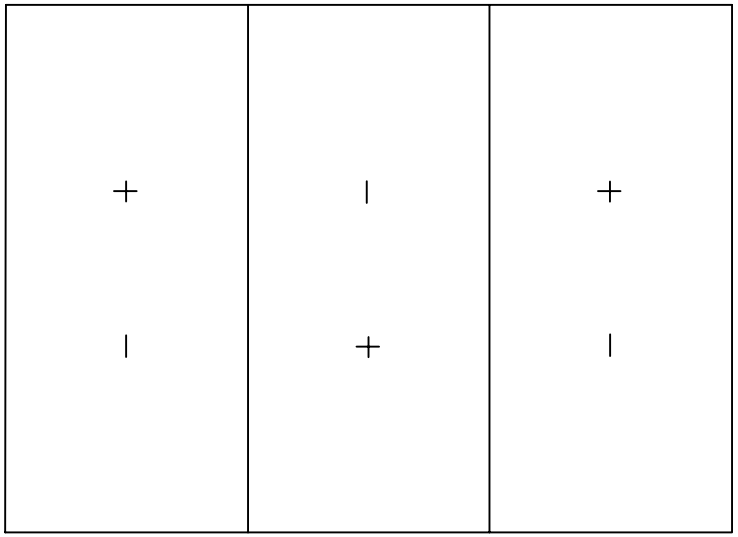
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NONE

SHEET NO.
1 OF 1

DRAWING NO.
CABLITE–2

REV.
A

Battery Position



5000 mAh NIMH
"C" BATTERY
(3x)

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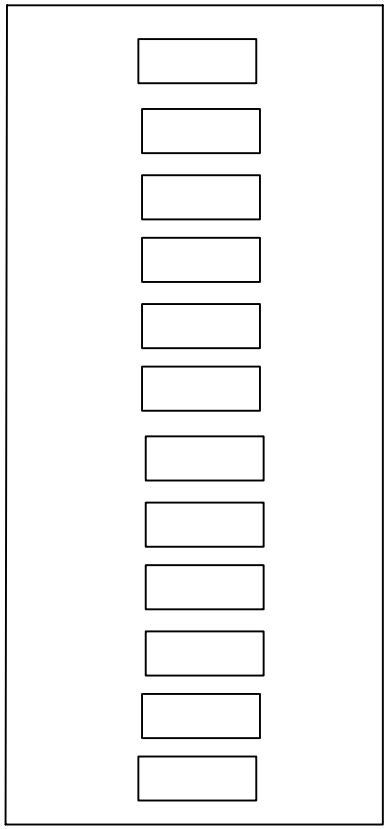
SCALE: NONE

SHEET NO.: 1 OF 1

DRAWING NO.: ECI-battery

REV.: A

Dip Switch Settings



DIP SWITCH
1: LIGHT
2: LIGHT
3: LIGHT
4: LIGHT
5: LIGHT
6: LIGHT
7: LIGHT
8: LIGHT
9: LIGHT
10: N/A
11: N/A
12: ON–OFF

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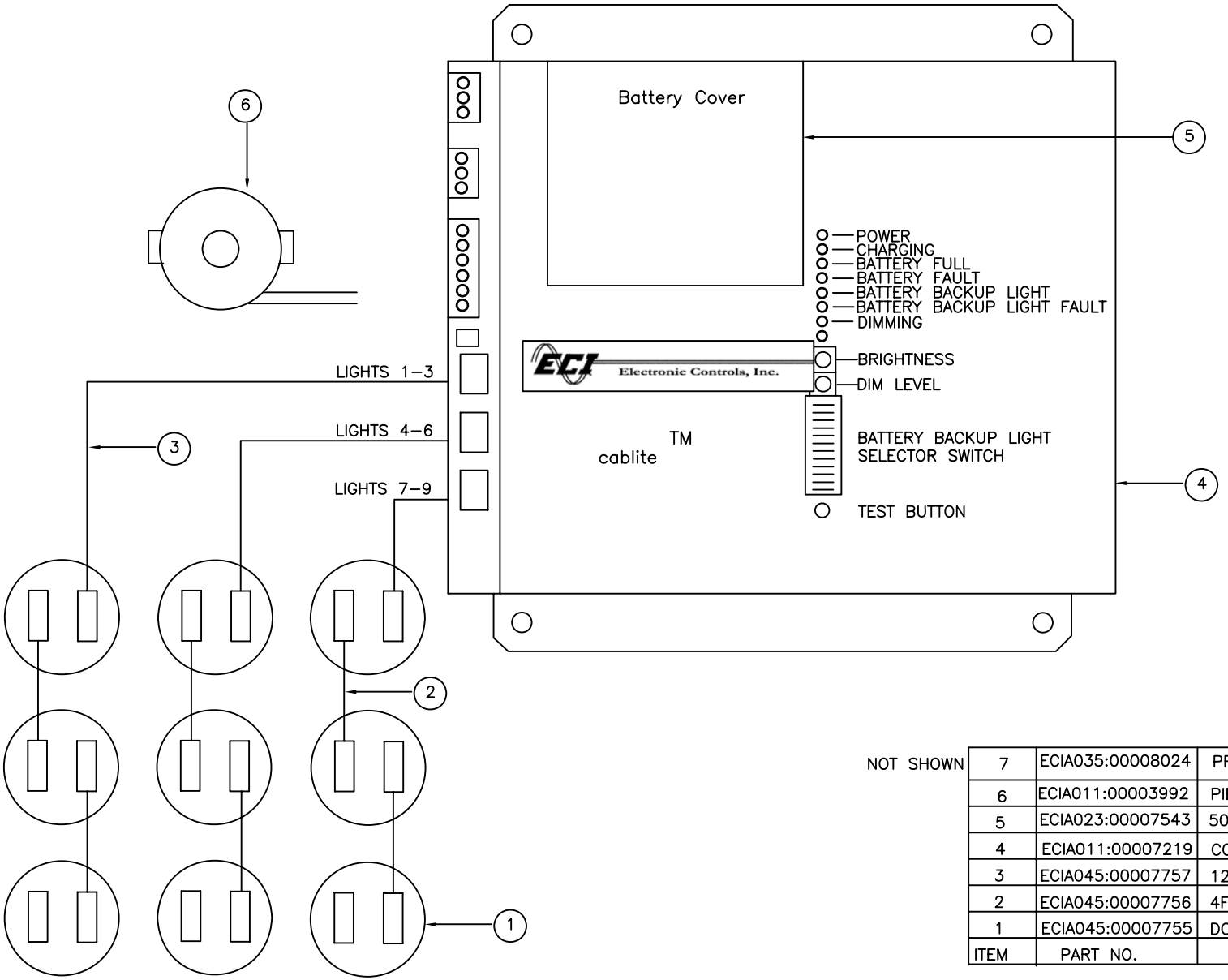
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SHEET NO.: 1 OF 1

DRAWING NO.: ECI–dip switch

REV.: A



ITEM	PART NO.	DESCRIPTION
NOT SHOWN 7	ECIA035:00008024	PROTECTIVE COVER
6	ECIA011:00003992	PIEZO ALARM
5	ECIA023:00007543	5000 MAH C NIMH BATTERY
4	ECIA011:00007219	CONTOL BOX
3	ECIA045:00007757	12 FT CABLE
2	ECIA045:00007756	4FT CABLE
1	ECIA045:00007755	DOWNLITE ASSY 6300 K

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SCALE: NONE

SHEET NO.: 1 OF 1

DRAWING NO.: CABLITE–3

REV.: A