



U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D.C. 20207
March 4, 1999

Ms. Kay March
Department Paralegal
Adorno & Zeder
2601 South Bayshore Drive, Suite 1600
Miami, Florida 33133

**RE: FOIA Request S-8030068: Fi-Shock, Inc., Electric Fence
Controller**

Dear Ms. March:

Thank you for your Freedom of Information Act (FOIA) request seeking information from the Commission. The records from the Commission files responsive to your request have been processed and copies of the releasable responsive records are enclosed.

The enclosed records include file information generated by the Commission itself or its contractors for regulatory or enforcement purposes. These records are in file CPSC RP890087, Fido-Shock Pet Deterrent Model No. SS-750 and are identified as Establishment Inspection Reports, Laboratory Summaries, Hazard Assessment memoranda, Preliminary Determination Sheet and other correspondence, notes and documents. The Commission has established management systems under which supervisors are responsible for reviewing the work of their employees or contractors. The file information materials are final and have been prepared and accepted by the Commission's staff under such review systems. The Commission believes that it has taken reasonable steps to assure the accuracy of the information. Please note that the Commission's staff, not the Commissioners themselves, made the preliminary determination that this product presented a substantial risk of injury to the public as defined by the Consumer Product Safety Act.

This completes the processing of your request. The cost to the Commission to perform the searches and prepare this information was \$100.00. In this instance, we have decided to waive the charges. Thank you for your interest in consumer product safety. Should you have any questions, contact Sandra Bradshaw by letter, facsimile

Page 2

(301) 504-0127 or telephone (301) 504-0785 (ext.1224).

Sincerely,

Todd A. Stevenson
Deputy Secretary and
Freedom of Information Officer
Office of the Secretary

Enclosure

ROBERTSON, WILLIAMS, INGRAM & OVERBEY

ATTORNEYS AND SOLICITORS

FOURTEENTH FLOOR

ANDREW JOHNSON PLAZA

KNOXVILLE, TENNESSEE 37902

CLAUDE K. ROBERTSON
NORMAN H. WILLIAMS
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T. LYNN TAPPY
JEFFREY A. WOODS

TELEPHONE
(615) 522-2717
FACSIMILE
(615) 522-7929

July 9, 1990

MFR/PRVLBR NOTIFIED

No comments made
 Comments attached
 Excisions/Revisions
 Firm has not requested
further notice

8/12/98
XOB

Mr. Timothy D. Jones
Compliance Officer
Division of Corrective Actions
Directorate for Compliance and
Administrative Litigation
U.S. Consumer Product Safety Commission
Washington, D.C. 20207

Re: CPSC RP890087
Fido-Shock Pet Deterrent
Model No. SS-750

Dear Tim:

Following up my last letter to you, I have discussed with my client the response which it will give to your request to change its product in line with the suggested changes made by the Consumer Product Safety Commission.

Fi-Shock firmly believes that its product design is safe for the purpose for which it was intended and not hazardous to the public when it is used. Fi-Shock therefore proposes that to meet the concerns addressed by CPSC it will modify its warnings on the product to fall in line with those changes suggested by the CPSC staff. However, it proposes only to modify the warning if all other manufacturers and importers are required to carry the same warning on their products as Fi-Shock has on its products.

We discussed at length in Washington on June 6 the competitive nature of the market place and the effect that having a warning required of Fi-Shock, but of no other manufacturer, would have on Fi-Shock's product sales. If CPSC believes that modification of the warning is necessary then it should be required for all manufacturers and importers and not just Fi-Shock.

The language used in the modification of the warning would, of course, require approval of Underwriters Laboratories prior to implementation. Upon receiving word from you that this is acceptable and the language is agreed upon, we will immediately forward that to Underwriter's Laboratories for their approval.

Mr. Timothy D. Jones
July 9, 1990
Page Two

If you have any questions, please feel free to contact me.

Cordially yours,



Lynn Tarpy

LT:dld

~~FOR OFFICIAL USE ONLY~~

OCT 25 1990

Dan McCarter
Chief Engineer
Fi-Shock Inc.
5360 National Drive
Knoxville, TN 37914

RE: CPSC RP890087
Fido-Shock Pet Deterrent
Model No. SS-750

Dear Mr. McCarter:

The U.S. Consumer Product Safety Commission staff has decided not to proceed further with the investigation in file number CPSC RP890087, which involves your Model No. SS-750 Fido-Shock Pet Deterrent electric fence controller. This decision is based on information you provided during the meeting of June 6, 1990 and in subsequent letters to the staff, a review of all electric shock and electrocution incidents in the Commission's data base, and the review and analysis of the 1976 CPSC file ID 76-133 involving your Sure-Shock SS-500 continuous current electric fence controller.

Your obligation to inform the Commission of defects associated with this product which could create a substantial product hazard as defined in 15 U.S.C. § 2064(a) is a continuing obligation. If you receive any information affecting the scope, prevalence, or seriousness of the subject defect or hazard, or information regarding other potential defects or hazards, you must report this information to the Division of Corrective Actions.

This determination by the staff is based upon the information presently available to us. The staff will assess any new information concerning this product to determine if action should be taken to protect the public. Should the staff decide to investigate further, we will notify you.

If you have any questions, please contact Tim Jones,
Division of Corrective Actions, U.S. Consumer Product Safety
Commission, 5401 Westbard Avenue, Room 230, Washington, D.C.
20207, telephone: (301) 492-6608.

Sincerely,

Carlos L. Perez, Director
Division of Corrective Actions
Directorate for Compliance and
Administrative Litigation

Certified Mail

cc: CPSC Central Regional Center
Suite 2945
230 S. Dearborn Street
Chicago, IL 60604

Lynn Tarpy, Esq.
Robertson, Williams, Ingram & Overbey
Fourteenth Floor
Andrew Johnson Plaza
Knoxville, TN 37902

10/3/90

LAWYERS°

NEVER LOSE THEIR APPEAL

Do we want to urge them
to still provide owners
w/ a warning that fuse
serves a safety function?
Discuss with MMC.

— TJ Brey

I thought we
agreed at POP - No
Eric 1/6 RP 89-87

B122LA

SECURITY TAG
10/16/90

review of 14 16 - 133 (Fish) and EPI

and EPI incidents from 1973 - 1990.

Decision

Eric — 11/0/90
FYI

File and

pls. return
after review of EPI
Core letter. Team

Jim

Mar - here's the draft 11/1/90 Jim Jones

Core letter for Fish
Since the firm has ^{desired} indicated
it would improve its ~~warning~~ warning
statement or add a fuse warning
"only" if all other companies did likewise
I would prefer not to include this in the
core letter. OK m.d. 11/2/90

TJ (6/11/80) ①

10 76-133 (opened 6/2/76) (4/13/77)
last letter 8/10/77

Fi-Shock Src. (Close-Out recommendation
recommendation for product safety standard
Development)

Shock SS-500 Continuous Current
Electric Fence Controller

operates on) → 110 Volt, 60 cycles, A.C. ~~line~~
- continuous 8 to 10 milliamps (± 1)

- Mfg'd 300,000 in part 7 years
(Consumer Product)

BESL evaluated 2 samples
- 13 m.a. measured - ~~concluded~~ determined that
this was higher than what was considered safe
for humans.

- Safe 4 to 5 m.a.

- 13 ma. is above let go level

Additional tests

- 3.45 ma. too weak to be effective

Types Available: 1) Solid State (High Voltage Interrupter)

A - Interrupter
B - Continuous Current

- safest on market
3 times more powerful than any other

Incidents

Electric Fence Fatalities : 9 injuries + deaths

2 injuries and 1 Death from a commercial fence controller

5 Deaths + 1 injury from Home-made Devices

"OPDI and Fi - Stock believe the removal of an effective continuous current type controller from the market would result in the increased use of home-made installations."

1 injury → 7yr. old boy scarred by contact with commercial unit ~~measured~~ measured at 10 ma. (Stox Stock

2nd injury → 2yr. old girl grabbed barbed wire fence ^{she,} using a Fi Stock unit - could not let go until freed by owner. (Laceration but no burns)

(Under investigation)

1 death → 1937 A 16yr. old boy electrocuted from by an interrupter type with 49.2 ma. at .116 to .20 second pulse. - Boy was hung up in fence for 5 minutes due to a slippery ground

5

OPMI Recommendation

2) develop CP5A standard

4/13/77 memo to Commission, Fence
Controller and Standard development - memo
went to the Commission

[12/6-7/76 EIR of Fi-Shok, etc.

including: SS - 500 Continuous Current AC
9 ma \pm 1 / 900 V

SS-700 Dog Shocker 9 ma \pm 1

- 1 complaint of a miniature dog being killed
from an unidentified ^{model} Fi-Shok controlled fence

6/17/76 meeting memo of 6/15/76 meeting

- 300,000 units in last 7 years
100,000 est. in reserve (2 yr. life)
- death of mine dog only

- OPMI not forcing firm to reduce output
current of 9-10 ma to 5 ma, only if at
option of firm

- field testing discussed of
breeders' output of 5 ma.

Death Certificates

(1-15 are 1985-1990 period, 15+ are 1993-12/84 period)

501015551

Aa - 6/2/85, Age - 34, M

- probable heart condition caused by contact with elec. switch box and electric fence. - ~~not water on ground~~
- No product ID

506080830

Aa - 5/26/85, Age 15, F

- elec. current shock - speaking into phone over fence, leg contacted fence wire
- No product ID

577039441

Aa - 7/10/85, Age 15, F

- electrocution, elect. fence - 110 Volt
- No product ID

622014379

Aa - 5/27/86, Age 66, M

- child came in contact with electrified fence
- No product ID

648027700

Aa - 4/6/86, Age 27, M

- Arm caught in ~~110 volt~~ fence

751013613

Aa - 4/3/87, Age 78, M

- touched metal ~~pipe~~ pipe surrounding elec. fence wire

Death Certificates

7) 740012323

Acc 6/19/87, 42y, M

- contacted 110V fence
- no prod. ID.

8) 704012793

Acc - 6/12/87, 9yrs M

- touched elec. fence, no prod. ID.

9) 712064537

Acc - 6/13/87, 9yrs, M

- contacted 110 volt elec. fence, no prod. ID

10) 753016119

Acc 6/12/87, 65yrs, M

- contacted hot wire fence while standing in water, - no product ID

11) 851030720

Acc: 8/2/88, 68yrs F

- grabbed elec. fence with hands
- no prod. ID

12) 806212687

Acc. 12/12/88, 2yrs M

- electrocuted by charged fence
- no prod. ID.

13) 822003348

Acc. - 1/21/88, 81yrs M

- attempting to wire elect. fence - accidentally

Death Certs:

- 4) 842074091
Acc 7/18/88 17yr. M
- subject fell onto elec. wire and fence
- no prod. I.D.
- 5) 842010596
Acc. 7/25/88 7yr. M
- coming in contact with electrified wire fence
- no prod. I.D.
-

- 6) 316005176
Acc 10/21/73 81 yr. F
- elec. shock from elec. fence
- no prod. I.D.
- 7) 318027805
Acc. 7/6/73, 9yr. M
- touched electrified fence while standing in water
barnyard; no prod. I.D.

- 8) 337624551
Acc 7/21/73 14 yr. M.
- working on homemade elec. fence → 110 volts

- 9) 406083952
Acc 7/30/74 40yr. F
- contact with elec. fence, no I.D.

- 10) 413017001
Acc 10/8/74 10yr. F
- fell on elec. fence, no I.D.

Death Certs.

- 1) 437015209
Aa. 4/29/74 4 yr. F
- allegedly electrocuted on electrified fence
- 2) 445017098
Aa. 10/18/74, 4 yr. M
- fell elec. fence, no ID
- 3) 447035813
Aa. 9/3/74, 24 yr. F
- tangled in bale of wire that touched elec. fence
- 4) 51000456
Aa. 2/28/75, 66 yr. M
- advanced coronary disease, intraplaque hemorrhage,
- victim "probably" made contact with elec.
fence carrying 1150 volts, 0.14 amps (14 milliamperes)
(probable manufactured product not identified)
- 5) 517613045
Aa. 5/29/75, 11 yr. M
- electrocuted by charged wire fence, no ID
- 6) 540011020
Aa. 5/19/75, 5 yr. F
- contact with elec. fence, no ID
- 7) 548063857
Aa. 7/30/75, 13 yr. M
- fishing in pond when rod reel contacted elec fence
+ the ... 110 ...

Death Certs

8) 601020834

Acc. 8/27/76

12 yr. M.

- struck - elec. fence, no ID

9) 604008986

Acc. 6/17/76

29 yr. F.

- fell into elec. fence, no ID

20) 604013413

Acc. 9/25/76

10 yr. F.

- contacted elec. fence, no ID

1) 621031110

Acc. ~~7/8/76~~

7/8/76

7 yr. F.

- child touched elec. fence

2) 635004701

Acc. 8/11/76

24 yr. F.

- contacted electrical fence

3) 647024884

Acc. 8/11/76

18 yr. F.

- touched electrical fence

4) 648032463

4/21/76

9 yr. M.

- fell across elec. fence while playing

5) 712044468

Acc. 6/29/77

14 F.

- touched electrical fence after swimming

Death Lists

- 6) 712068466
Aa. 9/7/77, 30 yr. F.
- fell on elec. fence
- 7) 717030078
Aa. 6/27/77, 10 yr. M.
- fell while playing - arm over elec. fence
- 8) 75017948
Aa. 6/15/77, 15 yr. M.
- touched 110 volt elec. fence
- 9) 821016520
Aa. 7/2/78, 2 yr. M.
- on rainy day, fell into elec. fence
- 10) 848073271
Aa. 8/8/78, 10 yr. M.
- struck by faulty elec. fence while playing
- 11) 021018335
Aa. 7/5/80, 2 yr. F.
- entangled in electric fence carrying 110 volts
- 12) 054010129
Aa. 7/11/80, 65 yr. F.
- electrocuted while crossing elec. fence

13) 113 028378

Death Certs.

- 44) 121013408
Acc 6/23/81, 7 yrs F.
- fell over elec. fence in pasture
- 45) 12122792
Acc 7/9/81, 38 yr. F.
- installing elec. fence to keep cows out of
- 46) 151019254
Acc 6/17/81, 16 yr. M.
- found against elec. charged fence
- 47) 221022367
Acc 9/9/82, 39 yr. M.
- contact with 110 volt elec. fence
- 48) 947010467
Acc. 4/21/79, 8 yr. F.
- contact with low tension fence
- 49) 337018978
Acc. 5/22/83, 50 yr. M.
- electrocuted while installing electric fence
- 50) 348057514
Acc 6/29/83, 3 yr. M.
- killed contact/touch electric fence
- 51) 248045653
Acc. 5/27/82, 77 yr. M.

- 52) 306106829
Acc 8/12/83
- grabbed wires of
- 53) 418016525
Acc 4/27/84 18 yr
- fell into electric fence
- 54) 401025826
Acc 9/26/84, 17 yr
- came in contact with electric fence
- 55) 339062490
Acc 8/5/83, 19 yr
- contacted electrically charged fence
- 56) 436211837
Acc 12/15/84, 41 yr
- electrocution while leaning against electric fence

VPI 19.3 - 7/90

1) H3A0118A1-83 (831028HCC3013)
- Fi-Shok 55-500 model
Aca 10/11/83 - ~~Fi-Shok~~ Dead Cat
- Fore Jager states it will not harm small animals but it electrocuted a cat. Coroner told consumer there was enough electricity to electrocute a person.

2) A870028A1 *review slip*
Aca 7/2/78 7yr. M
- boy electrocuted when wet clothing made contact with an electric fence
- no prod. ID

3) A930055A1 *review slip*
Aca 3/15/79 4yr. M
- electric fence killed child
- no l-D

4) V170101A1-81 *UL source*
Aca 6/23/81 7yr. F
- victim entangled and electrocuted by improperly hooked up elec. fence
- no l-D.

1075

800811 DAL 5854

Acc - 7/30/80, 29 yr. M.

Sears electric fence charger, Model 436-22032
insulated, tauted electrified wire adjoined
metal fence with each post - severe electric shock
from one arm to the other - Victim stunned,
had no burns, and no other medical problems.

80118 CEP 0102

Mp. : Aguayo, De Witt, N.Y.
Model A50

Acc. 10/30/79

- ~~cow's~~ Cow's death blamed by
farmer on malfunctioning electrification
- but no evidence of the power controller
was defective or that cow was electrocuted.

810805 HIA 1373

Acc. 6/23/81, 7 yr. F.

- electrocuted when girl climbed parents' fence
electrified with 220 volts. - No controller.
(fence box apparatus) (horse man)

811001 BEP 0053

Acc. 9/26/81, 67 yr. M.

- Fence connected to 110 volts. - Man
shocked, fell, broke shins, when he walked
on wet grass. Circuit breaker not tripped.

1P11

5) U373310A1-83
Acc 5/30/83, 3 yr, M
Victim (DOA) grabbed electric fence
No I.D.

6) U373417A1-83 UL some
Acc 5/23/83, 50 yr, M
- victim killed when dull bit touched electric
fence; No I.D.

7) G-890043A1
Acc 8/1/78, 5 yr, F
- child grabbed elec. fence and was burned, no II

8) ~~U7A0425A1~~ U7A0425A1 UL some
Acc 9/19/77, 2 yr, F
- child choked (menstr.) when she grabbed fence
1985-7/1990

9) X020910A1-90 Me Cop
Acc 9/13/89, 3 yr, F
- electrocuted by wire on electric fence

1P1

- 10) F051073A1-86 news clip
Acc 4/20/86, 6 Yr. M
- electrocuted by electrically charged
single wire fence, No 1-D.
- 11) F661005A1-86 news clip
Acc 5/28/86, 3 yr. F
- girl shocked by electric fence, No 1-D.
- 12) A710045A1-87 news clip
Acc 11/29/86, 5 yr. F
- girl tripped after leg was entangled in
elec. fence; short convictions and suffered leg burn
- No 1-D
- 13) X957431A1-88 news clip
Acc 5/10/88, 73 yr. F
73 yr. old woman electrocuted by an
electrified fence, no 1-D.
- 14) ~~X888476A1-88~~ N920109A1-89 news clip
Acc. ~~7/27/88~~ 1/18/89, no age
- man shocked from unidentified elec. fence

1P11

5) X 962332A1-89 Macap
Aca 3/17/89, 9yr. F
- electrocuted from contact with an
electrified fence; no l.p.

6) U 972705A1-89 UL source
Aca 12/12/88, 2yr. M
- electrocuted when he jumped fence through
living ^{electrified} fence jury rigged with a voltage
booster added to it. (no l.p.)

7) X 993041A1-89 pen clip
Aca 9/8/89, 4yr. F
- electrocuted with electric fence wires
to keep out dogs.

8) U 286018A1-89 UL source
Aca 4/6/88, 27yr. M
- electrocuted when he became entangled in
an electric fence while playing with kids in yard
- No l.p.

19

IP11

- 19) UZ 86077A2-89 UL some
Acc. 4/20/86, 6 y, M.
- very killed and just shocked from
downward elec. fence
- 20) U 010557A1-90 UL
Acc 3/17/89, 9 y, F
- electrocuted when she leaped
against electric fence while barefoot
at home; No I.D.
- 1) X 052964A1-90 (900625C BB/506) New
Acc 4/10/90, 5 y, M.
- electrocuted from live voltage from
elec. fence when he leaped grain into
bin; (NOI not received yet)

101

750827 OPD 7148 (MEISS 1001)

Acc - 6/22/75

Ballot Advance Transformers, Inc. Model (Unknown) 40-W-T02

- 7 yr. old female electrocuted after reaching through a wooden fence and touching an electric wire fence in neighbor's yard. - no marks

760511 BEP 7001

Acc 5/8/76

2 yr. old girl

(Sue-Ann)

Fi Shock Inc.

Model 55-500

(SS-500)

- 2 yr. old female shocked from electrified fence - designed to operate 110-120V AC power rather than pulsed. - Contacted fingers when owner pulled girl from barbed wire fence. She could not release fence. - Sue Shock device and retail unit purchased as a sample.

790919 CEP 0849

Acc. 8/11/79, 72 yr. M.

Speedrite Brands Model AH2

reverse electric shock

- contacted electric fence from controller - rendered unconscious - no permanent injury - Controller connected to an experimental predator control fence

I-D-I's

- 1) 820812H/A1307
Acc 6/30/82, 3 yr. F.
- electrocuted when she ran into homemade elec. fence.
- 2) 750908 OPP 7200 ~~7/21/75~~ 12 yr. F.
Acc 7/21/75
- Victim apparently pulled from electrified fence - dryer → wiring or specs
- 3) 760714 BEP 0001 ~~7/8/76~~ 7 yr. F.
Acc. 7/8/76
- electrocuted when she contacted a homemade electrified fence
- 4) 880810 NYC 5098 ~~880815 CCC 0503~~ 7 yr. F. ~~Smith Fence Corp.~~ model 39 744
Acc 7/25/88
- electrocuted hearing electric fence wire from mother's leg, - wire connected to a fence dryer which was approx. 20 years old, - Fence recently repaired and was properly connected to a power source.
- 5) 881115 CCC 2060 ~~9/17/88~~ Fish Lake Inc.
Acc. 9/17/88 Model 95-750
- Incident with 4 yr. old male fox
RP 89-87

FOR OFFICIAL USE ONLY

PROPRIETARY

ATTACHMENTS:

_____	YES	NO

PRODUCT SAFETY ASSESSMENT (PSA) TECHNICAL EVALUATION REQUEST

Note: Print, use black pen, no blue ink.

Requested by: Tim Jones Org. Codes: CACA FD _____

Date: 7/6/90 Priority: B Case# _____

PRODUCT INFORMATION

Manufacturer: GENERIC State: 0

Product: ELECTRIC FENCE CONTROLLER

Brand name, model, etc. _____

Sample numbers: _____

Sample disposition: 1/1 RETURN TO CO 1/1 STORE AT UNSE

EVALUATION REQUESTED: RAW DATA BASE APPROPRIATION RE.

ALL ELECTRIC FENCES AND ELECTRIC FENCE CONTROLLERS CONCERNING ALL ELECTRIC

SHOCK AND ELECTROCUTION INCIDENTS.

(WEISS CODES INCLUDE 1001, 1871, 0605 AND 4062)

EP ASSESSMENT: DATES: From 1973 TO 7/90 SORT BY MFG. YES NO

1 IDI 1 PPI 1 WEISS COMMENTS 1 WEISS ESTIMATES 1 DTR 1 NFIRS

Hazard: ELECTRIC SHOCK / ELECTROCUTION

PSA ACTION (FOR PSA USE ONLY)

Request number: 5461

Compliance no.: _____

Priority: B

Received: 7/17/90
(time/date)

Date Requested: 7/24/90

Due Date: 7/24/90

Mfg. Generic

Product: Electric Fence Controller

Req'd. by: JONES Org. CACA

ASSIGNMENT:

Date: 7/18 Org: EPD

Assigned to: _____

Req. Summary: DATA REVIEW

1/13 - 7/90

Completed: _____

FOR OFFICIAL USE ONLY

PSA ACTION (FOR PSA USE ONLY)

PROPRIETARY

ATTACHMENTS: YES NO YES NO YES NO YES NO

Request number: Compliance no.: Priority: Received: (time/date)

PRODUCT SAFETY ASSESSMENT (PSA) TECHNICAL EVALUATION REQUEST

Note: Print, use black pen, no blue ink.

Requested by: TTM JONES Org. Codes: CACA FO

Date: 7/6/90 Priority: B Case#

PRODUCT INFORMATION

Manufacturer: GENERIC State: 0

Product: ELECTRIC FENCE CONTROLLER

Brand name, model, etc.

Sample number:

Sample Disposition: 1/1 RETURN TO CO 1/1 STORE AT WHS

EVALUATION REQUESTED: RAW DATA BASE INFORMATION RE.

ALL ELECTRIC FENCES AND ELECTRIC FENCE CONTROLLERS CONCERNING ALL ELECTRIC

SHOCK AND ELECTROCUTION INCIDENTS.

(WEISS CODES INCLUDE 1001, 1871, 0605, AND 4062)

EP ASSESSMENT: DATES: FROM 1973 TO 7/90 SORT BY MFG. YES NO

ID1 IP11 NEISS COMMENTS NEISS ESTIMATES DTH NFIRS

Hazard: ELECTRIC SHOCK, ELECTROCUTION

7/5 11/00

~~FOR OFFICIAL USE ONLY~~

82

PROPRIETARY

ATTACHMENTS:

_____	YES	NO

cd

PRODUCT SAFETY ASSESSMENT (PSA) TECHNICAL EVALUATION REQUEST

Note: Print, use black pen, no blue ink.

Requested by:

TIM JONES

Org. Codes: CACA

FO

Date:

7/5/90

Priority: B

Case#

PRODUCT INFORMATION

Manufacturer:

GENERIC

State: 0

Product:

ELECTRIC FENCE CONTROLLER

Brand name, model, etc.

Sample number:

Sample disposition:

RETURN TO CO

STORE AT WHS

EVALUATION REQUESTED:

DATA BASE INFORMATION (RAW)

RE: ALL ELECTRIC FENCE AND ELECTRIC FENCE

CONTROLLERS CONCERNING ALL ELECTRIC SHOCK

AND ELECTROCUION INCIDENTS, (NEISS CASES

INCLUDE 1001, 1871, 0605, 4062)

EP ASSESSMENT DATES: FROM

TO

SORT BY MFG.

YES NO

ID1

JP11

NEISS COMMENTS

NEISS ESTIMATES

DTH

NFIRS

Hazard:

ELECTRIC SHOCK / ELECTROCUION

7/16/90

PSA ACTION (FOR PSA USE ONLY)

Request number:

5443

Compliance no.:

Priority:

B

Received:

7/9/90

(time/date)

Date Requested:

7/16/90

Due Date:

7/16/90

Mfg.:

Generic

Product:

Electric Fence Controller

Req'd. by:

Jones Org. CACA

ASSIGNMENT:

Date:

7/9

Org:

EP

Assigned to:

Edwards

Req. Summary:

Data

Review

Completed:

~~FOR OFFICIAL USE ONLY~~

PROPRIETARY

ATTACHMENTS: _____ YES _____ NO
_____ YES _____ NO
_____ YES _____ NO
_____ YES _____ NO

PRODUCT SAFETY ASSESSMENT (PSA) TECHNICAL EVALUATION REQUEST

Note: Print, use black pen, no blue ink.

Re-tested by: TH JONES Org. Codes: CACA FO CA

Date: 6/14/90 Priority: B

Case# PP 89-87

PRODUCT INFORMATION

Manufacturer: EI-SHOCK, INC. State: 0 TN.

Product: ELECTRIC FENCE CONTROLLER

Brand name, model, etc. ELPO-SHOCK, MODEL NO. SS-950

Sample number: _____

Sample Disposition: RETURN TO CO STORE AT WISE

TESTATION REQUESTED: DATA BASE INFORMATION RE.

ELECTRIC FENCES AND ELECTRIC FENCE

CONTROLLERS CONCERNING ALL ELECTRIC SHOCK AND

ELECTROCUSSION INCIDENTS. (NEISS CODES

INCULCPE 1001, 1871, 0605.)

EP ASSESSMENT: DATES: From 1973 TO 6/90 SORT BY MFG. YES NO

101 P11 NEISS COMMENTS NEISS ESTIMATES DTH NFIRS

Hazard: ELECTRIC SHOCK / ELECTROCUSSION

PSA ACTION (FOR PSA USE ONLY)

Request number: 5400

Compliance no.: PP 89-87

Priority: B

Received: 6/18/90 - 9:00 A
(time/date)

Date Requested: 6/21/90

Due Date: _____

Mfg. EI-SHOCK INC.

Product: Electric Fence Controller

Req'd. by: JONES Org. CACA

ASSIGNMENT:

Date: 6/18 Org: EP

Assigned to: Edmonds

Req. Summary: Data Review

Electric Fences &

Controllers

Completed: _____

53 de - 1) 13 stak/ele, wabers
2) 39 fene

16/09/01

Electra Fene (100d) 1 Pl/

1) A 8 7002841 - electraentia 280202
- wet clothing contacted ele. fene.

2) A 930055 A1 790345
- electra fene killed child ^{4 years old}

3) COCO389A1 801229 CEP 3007 (completed) 801200
Sue Stock Fi - Stock, h.m., Royal 11-55-400
5-2089732 - mother contacted fene wire
while grounded so that victim couldn't release
from electra fene charge (EPI has no copy of this (M))

4) D080036A0 800811 DAL 5054, complaint
- man initially received slight tingles, then
several large jolt later
- saw 17-436

5) G 890043A1 780801 - saw child
- child grabbed electra fene and was burned

6) G 890043A2 780801 - saw child
- mother grabbed child who had fallen against
electra fene

ROBERTSON

VERBEY

CLAUDE K. ROBERTSON
NORMAN H. WILLIAMS
J. EDWARD INGRAM
J. DOUGLAS OVERBEY
KENNETH W. KROMER, JR.
T. LYNN TAPPY
JEFFREY A. WOODS

KNOX

TELEPHONE
615) 522-2717
FACSIMILE
(615) 522-7929

6/14/90
R E
Done
Handwritten notes and scribbles

Mr. Timothy D. Jones
Compliance Officer
Division of Corrective Actions
Directorate for Compliance and
Administrative Litigation
U.S. Consumer Product Safety Commission
Washington, D.C. 20207

Re: CPSC RP890087
Fido-Shock Pet Deterrent
Model No. SS-750

Dear Tim:

It was certainly a pleasure to meet you and your associates this past Wednesday. I feel we had a very productive meeting where you allowed us to present our side of the issues and gave us an opportunity to discuss the issues with you and your staff.

Fi-Shock believes that its SS-750 is a safe consumer product which, if price were no object, would be the product of choice of the consuming public. We strongly believe that the consumer caused the death of the 4-year old child by way of some other source. As I stated early in our meeting Wednesday, there are far more questions raised by the investigation into this incident in the Nashville area than there are answers. Everyone agreed that the SS-750 as allegedly modified by the consumer in Nashville was no different than the continuous output models from the other manufacturers whose literature we left with you.

A serious concern which we discussed was the hazard which would be raised in the marketplace should this particular class of fence chargers not be available to the public. Tom Boyd believes there would be several deaths per year if consumers and farmers were unable to buy this particular product and instead connect a 110 volt current to fencing. The death of the 4-year old in Nashville is the only death anyone at the meeting was aware which was allegedly caused by Fi-Shock's Model SS-750 or any other commercial fence charger. Deaths caused by electrified fencing have occurred where the user has connected fencing to a direct 110 volt outlet. We all agreed that this becomes an electrocution device rather than a fence charger.

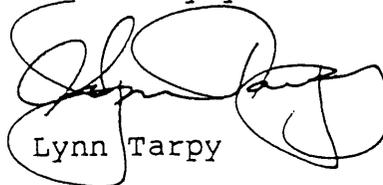
Mr. Timothy D. Jones
June 8, 1990
Page Two

We further discussed at length the adequacy of the warning on Fi-Shock's product. While Fi-Shock firmly believes that the warning posted in two places on their product is more than adequate, we have and will discuss further the comments and discussion of Wednesday's meeting concerning the warning labels and hope to be back to you within fifteen days with a response to those discussions.

Tim, this letter is not a full and complete description of everything we discussed in our meeting, but merely a confirmation of that meeting and what we believe will be the positive results flowing from it. Fi-Shock is currently seeking to find any documents relating to the 1976 inquiry by the Consumer Products Safety Commission and once those have been located, we will forward same to you.

If you have any questions regarding this, or additional comments, please contact me. We certainly appreciate the attention you gave us on Wednesday and, as stated above, we believe positive things will result from that meeting.

Cordially yours,



Lynn Tarpy

LT:cgw

ROBERTSON, WILLIAMS, INGRAM & OVERBEY

ATTORNEYS AND SOLICITORS

FOURTEENTH FLOOR

ANDREW JOHNSON PLAZA

KNOXVILLE, TENNESSEE 37902

CLAUDE K. ROBERTSON
NORMAN H. WILLIAMS
J. EDWARD INGRAM
J. DOUGLAS OVERBEY
KENNETH W. KROMER, JR.
T. LYNN TAPPY
JEFFREY A. WOODS

June 8, 1990

TELEPHONE
(615) 522-2717

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Mr. Timothy D. Jones
Compliance Officer
Division of Corrective Actions
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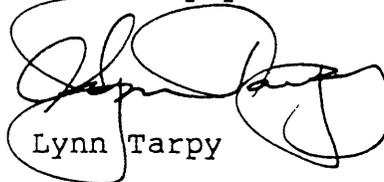
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Cordially yours,



Lynn Tarpy

LT:cgw

INSTALLATION INSTRUCTIONS ENCLOSED IN CARTON

Serial No. G-24875

Uses 1/4" Amp Time-Delay Fuses Only

INSTALL INDOORS ONLY



LISTED ELECTRIC FENCE CONTROLLER

Model SS-750

Fido-Shock

SOLID STATE PET DETERRENT

ELECTRIC FENCE CONTROLLER

INPUT: 110-120 V 60 Hz AC 10W MAX

DANGER - ANY ALTERATION TO THE DESIGN OF THIS CHARGER MAY CAUSE SERIOUS ELECTRICAL SHOCK

Made in U.S.A. by **FF-SHOCK inc**
5308 NATIONAL DRIVE, KNOXVILLE, TN 37914



INTERMITTENT OUTPUT

GROUND

FENCE

305-159

USE 20 TO 12 GAUGE WIRE ONLY

Parmak — the oldest name in electric fencing and the world's largest selling brand.

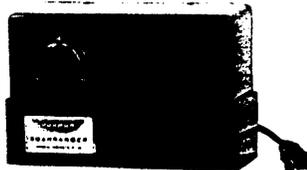


The 100% American made. Handcrafted by skilled electronic technicians.

**BUSHRANGER MODEL BR
110-120 volt AC operation**

High quality, economically priced weed control model. Destroys weeds touching fence. Heavy shock for effective livestock control on dry ground over long lengths of fence. New Tenite structural housing. Dual purpose short indicator and operation light. Complete, ready to plug in. Fully warranted.

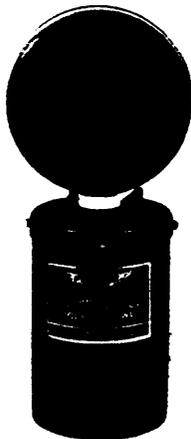
Suggested Retail Price **\$57⁹⁵**



**PARMAK HIGHWAY WARNING LIGHT
MODEL 150 HWL
Save your PROPERTY... or your LIFE!**

Avoid liability — conform to state laws — with the Parmak HWL 150. This bright *flashing* light is visible for more than a mile! Parmak warning lights have been proven in actual use for over 25 years. A *must* for horse-drawn vehicles with no electric power. Rugged, heavy steel case houses battery and flashing circuitry. Portable and self-contained — with bayonet mounting bracket, socket and mounting bolts. Instantly transferable from one vehicle to another. No troublesome cables to connect or wires to string. Fully warranted. I.C.C. approved. Exceeds S.A.E. specifications.

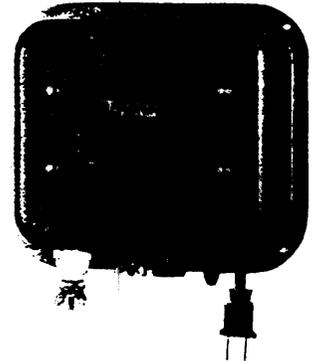
Suggested Retail Price (less battery)
\$37⁹⁵



**MODEL CC
110-120 volt
AC operated**

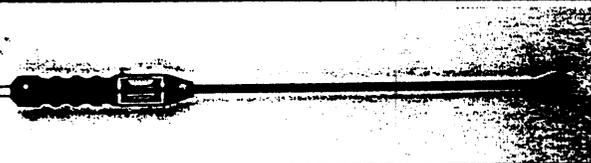
Effective, low-cost model gives continuous high voltage with positively controlled current. Built to Parmak's quality standards. Complies with U.S. National Safety Code. Double fused. Complete, ready to plug into AC line. Fully warranted.

Suggested Retail Price
\$36⁹⁵



**PARMAK
PHOTOVOLTAIC
SOLAR SYSTEMS**

Look to Parmak — the world's largest volume manufacturer of photovoltaic solar systems — for *all* your solar panel needs. We stock basic panel sizes to provide rapid response in meeting your requirements. Parmak's Mechanical and Electrical Engineering Departments offer free consultation in development of *your* solar system. Write for Solar Panel specifications and engineering data.



**"STOCKMASTER" STOCK PROD
Transistor Power**

Amazing development in stock prodders. Greater power, low cost, trouble-free operation. No moving parts and fully transistor powered 6,000 volts shock output. Durable vinyl shaft. Uses two "C" size batteries. Batteries included.

MODEL S-29 ... 29 inches long.
Suggested Retail Price **\$32⁹⁵**

MODEL SS ... 11 inches long.
Suggested Retail Price **\$32⁷⁵**

Parmak — the oldest name in electric fencing and the world's largest selling brand.

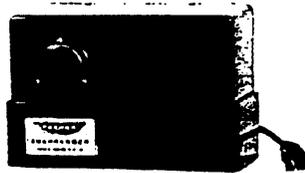


The 100% American made. Handcrafted by skilled electronic technicians.

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High quality, economically priced weed control model. Destroys weeds touching fence. Heavy shock for effective livestock control on dry ground over long lengths of fence. New Tenite structural housing. Dual purpose short indicator and operation light. Complete, ready to plug in. Fully warranted.

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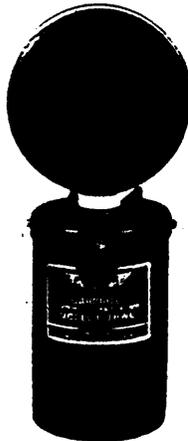
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MODEL 150 HWL**

Save your PROPERTY ... or your LIFE!

Avoid liability — conform to state laws — with the Parmak HWL 150. This bright *flashing* light is visible for more than a mile! Parmak warning lights have been proven in actual use for over 25 years. A *must* for horse-drawn vehicles with no electric power. Rugged, heavy steel case houses battery and flashing circuitry. Portable and self-contained — with bayonet mounting bracket, socket and mounting bolts. Instantly transferable from one vehicle to another. No troublesome cables to connect or wires to string. Fully warranted. I.C.C. approved. Exceeds S.A.E. specifications.

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\$37⁹⁵

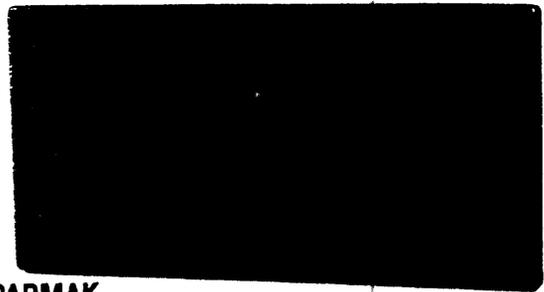
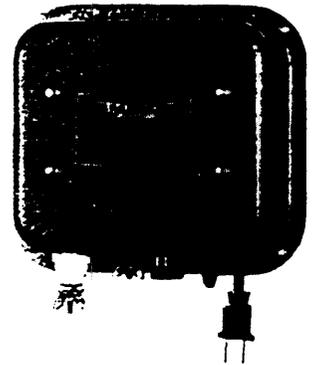


**MODEL CC
110-120 volt
AC operated**

Effective, low-cost model gives continuous high voltage with positively controlled current. Built to Parmak's quality standards. Complies with U.S. National Safety Code. Double fused. Complete, ready to plug into AC line. Fully warranted.

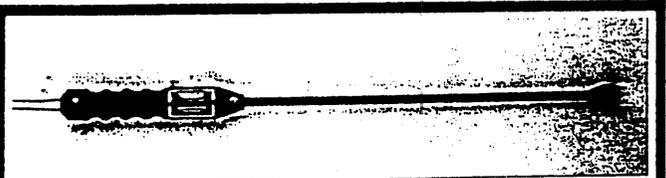
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SOLAR SYSTEMS**

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**"STOCKMASTER" STOCK PROD
Transistor Power**

Amazing development in stock prodders. Greater power, low cost, trouble-free operation. No moving parts and fully transistor powered 6,000 volts shock output. Durable vinyl shaft. Uses two "C" size batteries. Batteries included.

MODEL S-29 ... 29 inches long.

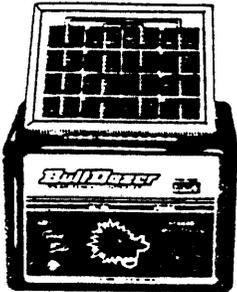
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MODEL SS ... 11 inches long.

Suggested Retail Price **\$32⁷⁵**

Bull-Dozer offers you a complete line of fence controllers to choose from. Depending on your fencing needs, you are sure to find a Bull-Dozer model right for you. Whether you choose the economical solar model or an inexpensive battery model, you'll get the same quality and reliable service from your Bull-Dozer fence controller.

Solar Fencer



SOLAR FENCE CONTROLLER Model 4000

- Completely solid state - no moving parts
- Delivers a non-burning shock
- Fence condition signal lamp
- Designed not to overcharge
- Built-in lightning protection
- No more costly batteries or recharging storage batteries
- No more crop damage due to low batteries
- No operating interruptions
- Maintains strong full shock on fence at all times
- Capable of charging 10 miles of fence
- Operates day or night— even for 21 days of total darkness
- Meets all requirements for high and low temperature

Battery Fencers



8-12 VOLT BATTERY Model 4612

- Operates on 6-volt or 12-volt dry or wet cell batteries
- Solid state design
- Doubles battery life - dry cell will last 4 to 6 months
- Automatic 6 - 12 volt switching
- Charges 10 miles of fence
- Fence condition signal lamp
- "UL" listed



6-VOLT BATTERY Model 410-D

- Delivers strong intermittent shock
- Non-burning shock of 1/300th second duration
- "UL" listed
- Charges up to 10 miles of fence
- Uses 6-volt battery
- Signal lamp to show strength of shock on fence.
- Ideal for remote area
- Non-conductive and non-corrosive case
- Completely solid state for longer life

Continuous Current



CONTINUOUS CURRENT Model 415-B

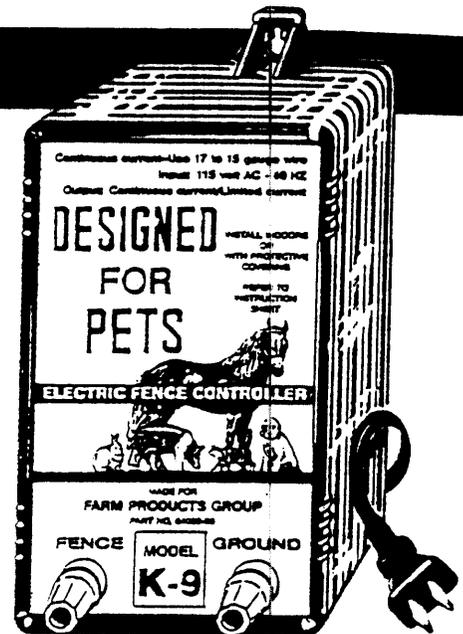
- Delivers a strong, continuous shock
- Especially effective in dry weather
- Designed for short, clean fence, under 1 mile

MODEL K9

Install K-9 to deter pets and other small animals from performing damaging mischief. Every person who has ever had to replace damaged flower beds or shrubs, clean up overturned garbage cans or chase runaway pets will appreciate the K-9 fencer.

The Model K-9 is a low voltage fence controller which delivers a continuous shock. Small animals receive a mild but memorable shock and quickly learn to avoid protected areas.

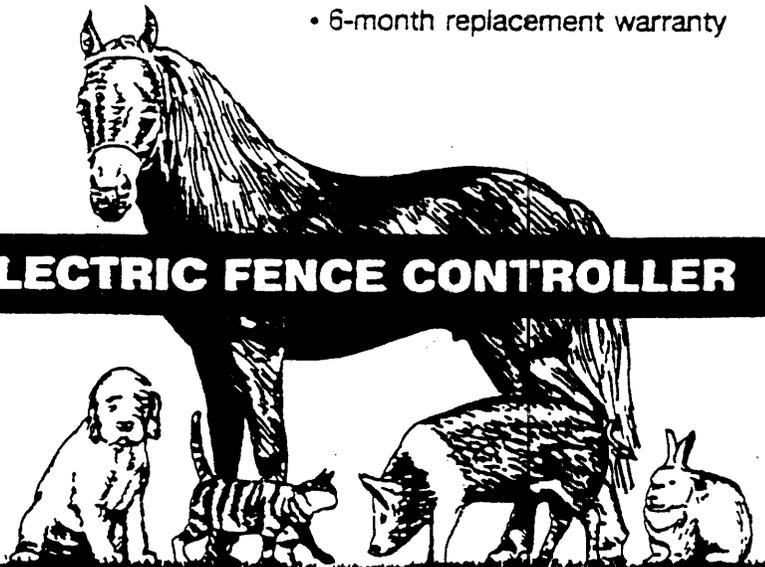
The K-9 will power up to 1 mile of clean unweeded fence and can also be used for small barnyard installations.



- Powers 1 mile of fence
- Continuous current output
- Durable black plastic cabinet
- Vented cabinet and drain hole
- Internal fuse for safe operation
- 6-month replacement warranty

DESIGNED FOR PETS

ELECTRIC FENCE CONTROLLER



Hol® Dem Electric Fencers

MODEL NO.	DESCRIPTION AND OPERATING CHARACTERISTICS	INDICATOR LIGHTS AND CONDITION	FUSES AND LOCATION
67	For temporary pastures. Uses 6 volt Hot-Shot battery. UL listed for indoor installation. Electro-mechanical shock timer.	One type NE51 for fence line condition.	None
68	Economy Fencer for temporary pastures. Uses 6 volt Hot-Shot battery. UL listed for indoor installation. Electro-mechanical shock timer.	Flashing Lamps replaceable by Hol® Dem Fencer repair stations only!	None
SS-690	For temporary pastures. 6 or 12 volt Hot-Shot battery. 8 or 12 volt auto battery.	Flashing Lamps replaceable by Hol® Dem Fencer repair stations only!	None
78	OPERATES ON 120 VOLTS, 60 CYCLE AC — This low cost fencer, which puts a continuous charge on the fence line, has no moving parts to wear out and cannot cause radio interference. A separate resistor is included for quick, easy installation, so the unit voltage can be lowered for small animals like baby chicks.	None	None
51	Continuous charge for small pastures where weed growth is controllable.	None	None
CT51	Continuous charge. 3-position voltage selector permits training of small to large animals.	One type 10C7 for fence line condition. Continuously on.	None
54B	Transistorized. High power. 60 shocks per minute for large pastures.	One type NE51 bulb for fence line and one for Fencer power. Both flashing. Illuminated OFF-ON switch flashes for poor ground.	Two (1 amp) located on case.
56	Weed-chopper type. 40-45 shocks per minute for medium pastures. Uses replaceable plug-in chopper. (Use Hol® Dem Saf-Tee Chopper, Model 577 only!)	One type 10C7 for fence line condition. Flashing.	None
57	Weed-chopper type. Built-in power switch. 40-45 shocks per minute. Handles up to 20 miles of fence. Uses replaceable plug-in chopper. (Use Hol® Dem Saf-Tee Chopper, Model 557 only!)	One type 10C7 for fence line, one type 10C7 for Fencer power. Both flashing.	Two (1 amp) on front panel.
58A	Transistorized. UL listed for indoor installation. 60 shocks per minute for large pastures.	One for fence line, one for fencer power. Both flashing. Lamps replaceable by Hol® Dem Fencer repair stations only!	Two (1 amp) located on case.
SP 980	Transistorized. High power. 60 shocks per minute for large pastures.	Lamps replaceable by Hol® Dem Fencer repair stations only!	Two (1 amp) located on case.

ELECTRIC FENCE CONTROLLERS

The new line of RED SNAP'R FENCE CONTROLLERS is a "New Breed" because it is a combination of the best qualities of today's fencers with the application of the latest materials and technology.

Made of Lexan structural foam, the case is virtually indestructible. RED SNAP'R FENCERS will not rust, dent or break, are watertight if sprayed or exposed to dripping water and will not corrode when exposed to barn atmospheres.

The case secures its components so that shipping and rough handling will not loosen them or render the unit inoperable. Solid State circuitry works over extreme temperature ranges.

RED SNAP'R FENCERS are produced in models to operate over ranges of one mile up to 20 miles. Solid State and Battery models produce high-voltage, short duration shocks to control livestock.

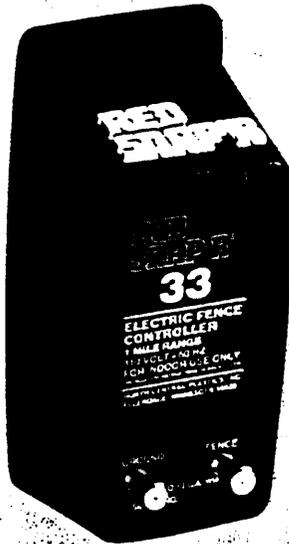
The Fencer case is non-conductive, therefore shock-proof. It is flame-retardant and cannot be a fire source. UL approved models shock through heavy wet weeds, yet cannot start fires, and while the shock to pets and children is uncomfortable, it remains safe under normal conditions.



MODEL 44 BATTERY FENCER.

This fencer is a solid state UL listed fencer but uses for its power source a 6 or 12 volt battery, either dry cell or automotive wet cell. This fencer will charge a fence of ten miles in length. The case, made of "Lexan" material will withstand damage by weather and the elements.

Packed 1 per carton
H-5 $\frac{1}{8}$ " x W-9 $\frac{1}{8}$ " x D-4 $\frac{1}{4}$ "
weight 3 $\frac{1}{2}$ pounds
4 Fencers per Master carton
H-17 $\frac{1}{8}$ " x W-9 $\frac{1}{8}$ " x D-5 $\frac{1}{4}$ "
weight 14 pounds



MODEL 33 CONTINUOUS

FENCER. This compact fencer charges the fence line with a continuous medium-high voltage charge and is used for minimum fencing requirements up to 1 mile. Typical applications would be a small hog lot or pasture where weeds are easily controlled or removed. It is powered by 110 volts 60 HZ.

Packed 1 per carton
H-5 $\frac{1}{8}$ " x W-6 $\frac{1}{8}$ " x D-2 $\frac{1}{8}$ "
weight 2 pounds
4 Fencers per Master carton
H-12 $\frac{1}{8}$ " x W-6 $\frac{1}{8}$ " x D-5 $\frac{1}{4}$ "
weight 8 pounds

41

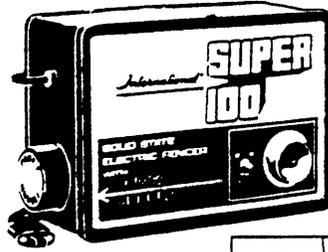
INTERNATIONAL Electric Fencers



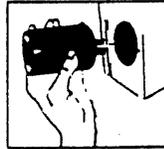
**SUPER 98—EXTRA POWER—
SOLID STATE**

Here's the new and powerful solid state Super 98. The extra power built into the Super 98 is in great demand today. That's because extra power helps overcome actual field problems such as excessive moisture, heavy grass and weeds, etc. The extra power is a result of the use of solid state electronics in the Super 98. Try a Super 98 on your farm and see extra power at work under all adverse conditions. 10 day free trial from dealer. Size: 12" x 8" x 5½". Shipping weight: 10 lbs. 115V, 60-cy, AC.

INTERNATIONAL Electric Fencers

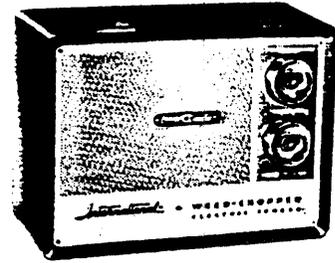


**SUPER 100 WITH
POWER MODULE**



It's the biggest bolt of controlled energy ever shot through a fence line. International does it with Super 100 . . . the Power Module fencer. Engineered to new solid-state standards, the Power Module contains the vital switching mechanism. The Power Module plugs in-and-out like a radio tube. So you replace it in seconds if ever needed and switching mechanism is fixed. Result: No labor cost to repair. Minimum downtime. Longer life. It's dependable. 115V, 60-cy, AC. Size: 12" x 8" x 5½" plus Power Module. Shipping weight: 10 lbs.

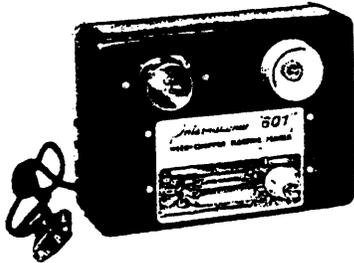
INTERNATIONAL Electric Fencers



FENCE-O-MATIC—WEED CHOPPER ©

This is the original Weed Chopper with the famous powerful shock. The charge clips off weeds and grass that grow up to the fence wire. Eliminates shorts from this cause. The FENCE-O-MATIC charges fences even on dry parched ground. It adjusts itself to maintain correct power under varying operating conditions. The longer the fence line the stronger the charge. What a shock! With built-in fence tester and fencer operating light. FENCE-O-MATIC is the one that farmers have depended upon for more than a generation. Size: 12" x 8" x 5½". Shipping Weight: 10 lbs. 115V, 60-cy, AC.

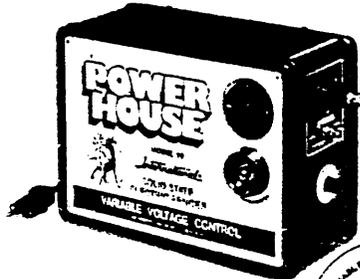
INTERNATIONAL Electric Fencers



601 CHOPPER TYPE 115V, 60-cy AC

A compact chopper operated fencer of excellent quality. Eliminates shorts from weeds and grass with a high voltage arc that cuts them off neatly. The mechanism of the "601" — dependable. When it comes to shock, the "601" pours it on. Contains many of the Weed Chopper deluxe features. Order now. Size: 9" x 6½" x 3". Shipping weight: 8 lbs.

INTERNATIONAL Electric Fencers



**POWER HOUSE 99 with
VARIABLE VOLTAGE CONTROL**

Most versatile hi-line you can have. Just dial the shock wanted . . . hi, low or in-between. Power House features a new built-in poor ground sensor/indicator light that glows if ground is inadequate. Try one yourself. 115V, 60-cy, AC. Size: 12" x 8" x 5½". Shipping weight: 10 lbs.



INTERNATIONAL Electric Fencers



650 POWERFUL 12 VOLT

Thousands of farmers have switched to 12 volt battery operation since International introduced the 650. This 12 volt shocker delivers twice the shocking power of the ordinary 6 volt. The 650 takes a beating and continues to work no matter where it's used.

International fences are 100% made in U.S.A. Size: 9" x 6½" x 3" Shipping weight: 6 lbs.

**HI-LINE POWER FROM
A BATTERY FENCER**

The 12 volt battery operated fencer that puts out hi-line shock power. Super 12 gives you maximum power even in cold weather. You harness all the power packed in 12 volt batteries. The dependable low cost way to fence anywhere. Size: 12" x 7" x 5". Shpg. Wt. 6 lbs.



SUPER 12



MODEL 375
6 volt battery operated. With battery compartment. Connections in base; no rust or dirt.

MODEL "77"
Transistorized. Top shock. Dependable. Lightning proof mechanism.

MODEL 350
Six volt battery model. Low priced. For temporary fencing.

MODEL 102
Economy priced hi-line model. For short range fencing.

DARE HITAIL ELECTRIC FENCE SHOCKER

Model 1347-110 Volt - 60 Cycle

continuous current output type

INSTALLATION INSTRUCTIONS

1. Mount Hitail on wall inside barn or shed. Select a dry sheltered area near 110 Volt outlet.
2. Connect Hitail 'FENCE' terminal to electric fence wire only.
3. Connect 'GROUND' terminal to ground rod with bare or insulated wire.
4. Use porcelain tube style insulators where 'FENCE' and 'GROUND' wires pass thru walls or partitions.
5. Provide proper ground. Use a clean, unpainted rod or pipe driven a minimum of six feet into ground. Connect ground wire rod with a ground clamp. Do not wrap wire around rod to connect. All connections must be clean and tight.

For best result avoid using makeshift materials. Install electric fence with posts, wire, and insulators made for electric fence. Dare offers the most complete line of electric fence necessities - write for catalog.

ONE YEAR WARRANTY. Dare Hitail 1347 is warranted against defective parts or workmanship for one year from date of purchase. If the Hitail becomes inoperative during the first year, return prepaid to Dare Products, Inc. for repair or replacement. Certify date of purchase with sales receipt. Warranty does not cover shockers damaged by lightning or over one year old. Shockers beyond warranty period or damaged by lightning, return with check or money order for \$4.50.

IN CASE OF ANY DISCREPANCY, RETURN THIS SLIP. INDICATE ON REVERSE SIDE NATURE OF ERROR. INCLUDE ANY PERTINENT MARKINGS ON ORIGINAL ORDER. THANK YOU.

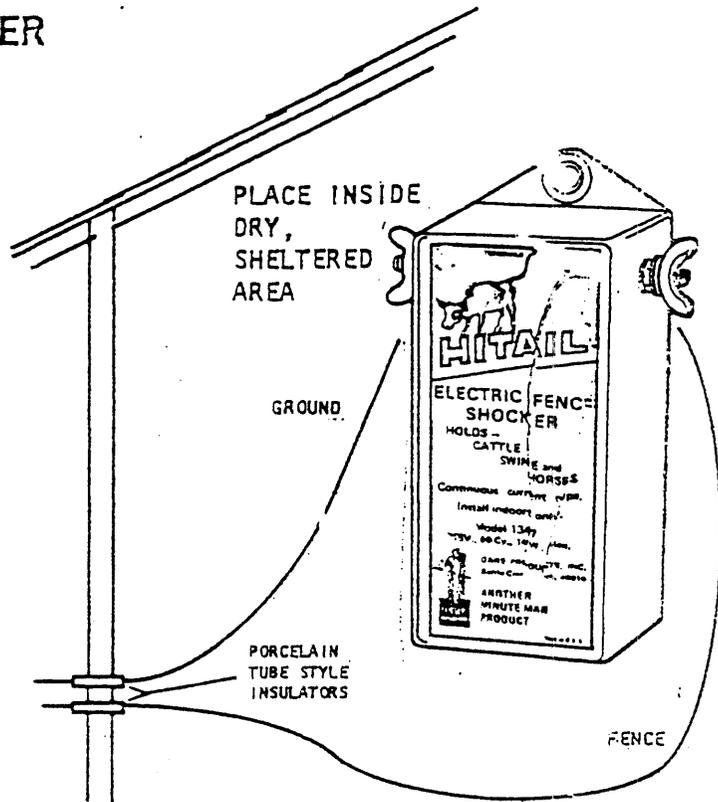
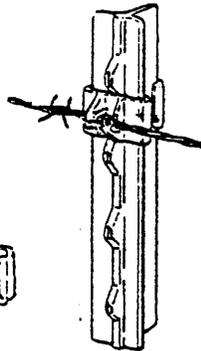
PACKED BY **58 14**

Try **SNUG** studded 'T'

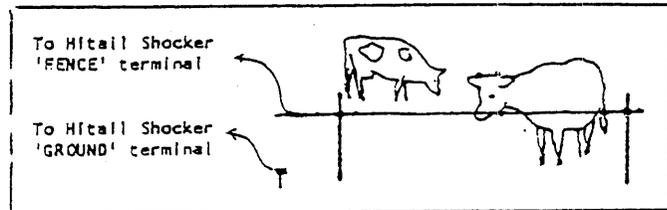
snap on

All polyethylene - no metal to rust, break or short out.

Fit standard size studded 'T' posts.

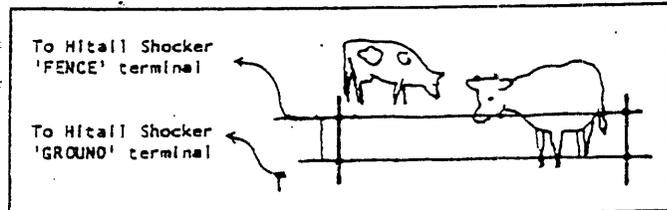


TYPICAL ELECTRIC FENCE INSTALLATIONS



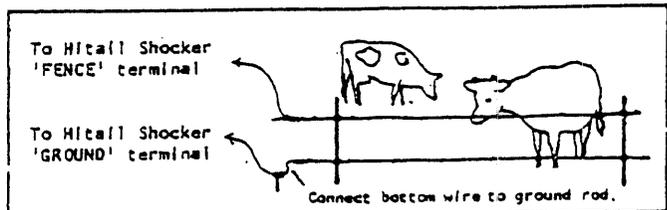
SINGLE WIRE INSTALLATION

Electric fence wire is attached to posts at 2/3rds height of animal.



TWO WIRE SYSTEM - Both wires charged.

For use with two different sized animals, such as cattle and hogs.



TWO WIRE SYSTEM - One wire charged, one grounded.

Best when ground is dry or rocky and sandy.

DARE PRODUCTS, INC.
BATTLE CREEK, MICHIGAN 49016

AD-553

43

6/6/90

Tim Jones, CACA

Ted GORDON, Engineering

Eric L. Stone, Division of Administrative Litigation

Lynn TARPY, Fi-Shock - Legal Counsel

Jim Beyle, Fi-Shock President

DANNY McPATER, FI-SHOCK - CHIEF ENGINEER

MARC Schoem, Corrective Actions Division

Fire Shock Loss. 6/6/90 Meet.

Lynn Torgny → UL listed product

Tom Boyd → provides 5 companies that
are continuous voltage (non-UL listed)

↓
the ^(Controller) believes the unit was dead
before the incident

→ believes that 6-7 million units
were sold like this 99-750 unit →
and no other incidents have been reported

Company position (Boyd) was that

800 volts at 8 million is not a
Mark hazard.

6-6-90 Meeting with Fi-Shock

Participants: Marc Schaefer, Ted Gordon

T. Lynn Torgy, Esq., Tom Boyd, Pres. of
Fi-Shock, Dan McCarter, Fi-Shock

Torgy - only similar UL approved charger
has safest product of its kind on the market.
Brought in info on competitor's product.
Fuse provides safety.

Boyd 5 mts in market. 5-7 million continuous
charge since controllers. Claims that their
product is much safer than most. (Competitor's
non-UL product is what he's referring to.)

Torgy - child was unsupervised. Man had two
chairs inside pen. Had fence charger inside
fence. Fuse blew as it was supposed to do.
Man overheard. Then it "became" "same product
everyone else is selling."

Boyd thinks guy wired 110v. to fence to keep
those mean dogs in.

McCarter asks about rivets. Says they don't use
P&P rivets. Wonders if it looks like it was

revised.

Transformer shouldn't become defective from non-use, says McClarte.

McClarte thinks transformer should handle continuous current.

Ted explained what we did with new transformer, 20 min. to current drop.

McClarte says its conceivable that original transformer had output of 8mA. Wants to know: 800 volts @ 12 mA (max). How decide if this is fatal current?

Ted explained that we looked at UL study at 120V and extrapolated to 800V.

Tom Boyd - charger never worked. He thinks consumer had bypassed charger w/ 110V. Doesn't think it could burn arm of victim.

Discussed incident further, Don't believe consumer's story. Think all a cover for use of 110V. Otherwise, believe consumer would sue.

1 of 7 people send in warranty cards.
Boyd-Hill work to make new product safer.
Concerned about losing customer w/warranty.

Boyd says they + others make non-
UL changes. Says in 1976 CPSC looked
at changes. They tried lower voltage +
language at our request but they don't
work. (Sandi Shetasaki)

BREAK

They'll look at fuse issue, etc.
Will consider what they brought in.
They'll check files.

⇒ ISSUES COINED BY FIRM

- 1- Their product once it fails + has fuse replaced is no worse than others on market.
- 2- Do not believe it presents shock hazard (at least electrocution) at 8-12 mA and 800V.
- 3- Do not believe that ~~power~~ wires are failing at large rate. (Raised possibility that a lightning strike on output side can damage trace w/out damaging mov.)
- 4- Warning could cost them customers. Highly competitive industry.
- 5- Concerned that changes will adversely affect market.



Boyd says they + others make non-
all changes. Says in 1976 CPSC looked
at changes. They tried lower voltage +
language at our request but they don't
work. (Sandishtasali)

BREAK

They'll look at fuse issue, etc.
Will consider what they brought in.
They'll check files.

⇒ ISSUES RAISED BY FIRM.

- 1- Their product once it fails + has fuse replaced is no worse than others on market.
- 2- Do not believe it presents shock hazard (at least electrocution) at 8-12 mA and 800V.
- 3- Do not believe that ~~the~~ triacs are failing at large rate. (Raised possibility that a lightning strike, on output side can damage triac w/out damaging mov.)
- 4- Warning could cost them customers. Highly competitive industry.
- 5- Concerned that changes will adversely affect market.



~~FOR OFFICIAL USE ONLY~~

JUN 6 1990

Lynn Tarpy, Esquire
Robertson, Williams, Ingram & Overbey
Andrew Johnson Plaza, Fourteenth Floor
Knoxville, Tennessee 37902

Re: CPSC RP890087
Fido-Shock Pet Deterrent
Model No. SS-750

Dear Mr. Tarpy:

This letter acknowledges your letter of May 3, 1990, our telephone communication of May 15, 1990, and confirms your request for a meeting between Fi-Shock Inc. and the Commission staff. The meeting will be held in The Westwood Towers Building, 5401 Westbard Avenue, Bethesda, Maryland, at 10:00 AM on June 6, 1990.

If you have any additional questions, please contact me at (301) 492-6608.

Sincerely,

Timothy D. Jones
Compliance Officer
Division of Corrective Actions
Directorate for Compliance and
Administrative Litigation



U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D.C. 20207

JUN 1 1990

Lynn Tarpy, Esquire
Robertson, Williams, Ingram & Overbey
Andrew Johnson Plaza, Fourteenth Floor
Knoxville, Tennessee 37902

Re: CPSC RP890087
Fido-Shock Pet Deterrent
Model No. SS-750

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If you have any additional questions, please contact me at (301) 492-6608.

Sincerely,

A handwritten signature in black ink, appearing to read "Timothy D. Jones".

Timothy D. Jones
Compliance Officer
Division of Corrective Actions
Directorate for Compliance and
Administrative Litigation

Meeting June 6, 1990, 10:00-12:00

Dan McCarty, Chief Engineer

Tom Boyd, President

David Gradolph, Chairman of Board

5/19/90 Telecon

Lynn Tarpay

ROBERTSON, WILLIAMS, INGRAM & OVERBEY

ATTORNEYS AND SOLICITORS

FOURTEENTH FLOOR

ANDREW JOHNSON PLAZA

KNOXVILLE, TENNESSEE 37902

CLAUDE K. ROBERTSON
NORMAN H. WILLIAMS
J. EDWARD INGRAM
J. DOUGLAS OVERBEY
KENNETH W. KROMER, JR.
T. LYNN TARPY
JEFFREY A. WOODS

TELEPHONE
(615) 522-2717

FACSIMILE
(615) 522-7929

May 3, 1990

Mr. Tim Jones
U.S. Consumer Products Safety Commission
5401 Westbard Avenue
Room 230
Washington, D.C. 20207

Re: CPSC RP890087
Fido-Shock Pet Deterrent
Model No: SS-750

RECEIVED
CPSC
COMPLIANCE & ENFORCEMENT
MAY 11 12:10

Dear Mr. Jones:

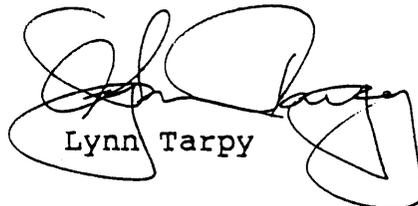
This firm represents Fi-Shock, Inc. of Knoxville, Tennessee, the manufacturer of the above-listed product. Fi-Shock has received Marc Schoem's letter of April 27, 1990, this week and has asked me to respond to it.

Fi-Shock requests a meeting at the parties' earliest possible convenience with the Staff of the Directorate for Compliance and Administrative Litigation of the U.S. Consumer Products Safety Commission. Fi-Shock takes great exception with the preliminary determination made by the Compliance Staff that there is a design defect with the SS-750 controller.

Fi-Shock believes that a meeting with the staff is necessary to discuss further the Compliance Staff's determination. Fi-Shock fully believes that through the course of such a meeting, the Compliance Staff will recognize that there is no design defect or inadequate warning associated with the product.

We look forward to hearing back from you on scheduling a meeting between the parties. If you have any questions, please do not hesitate to contact me.

Cordially yours,



Lynn Tarpy

LT:cgw

cc: Mr. Marc J. Schoem, Acting Director
Consumer Products Safety Division, Central Regional Center

ROBERTSON, WILLIAMS, INGRAM & OVERBEY

ATTORNEYS AND SOLICITORS

FOURTEENTH FLOOR

ANDREW JOHNSON PLAZA

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T. LYNN TARPY
JEFFREY A. WOODS

TELEPHONE
(615) 522-2717
FACSIMILE
(615) 522-7929

May 3, 1990

RECEIVED
CPSC
COMPLIANCE & ENFORCEMENT
MAY 9 12:07

Mr. Tim Jones
U.S. Consumer Products Safety Commission
5401 Westbard Avenue
Room 230
Washington, D.C. 20207

Re: CPSC RP890087
Fido-Shock Pet Deterrent
Model No: SS-750

Dear Mr. Jones:

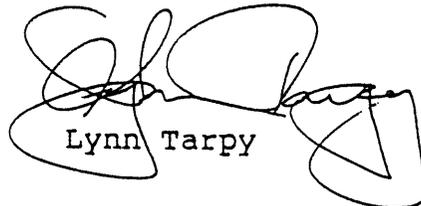
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Cordially yours,



Lynn Tarpy

LT:cgw

cc: Mr. Marc J. Schoem, Acting Director
Consumer Products Safety Division, Central Regional Center



Underwriters Laboratories Inc.,

Melville, New York • (516) 271-6200
Santa Clara, California • (408) 985-2400
Research Triangle Park,
North Carolina • (919) 549-1400

Subject 69

3/29
TEP

333 Pfingsten Road
Northbrook, IL 60062-2096
April 2, 1990

TO: Electrical Council of Underwriters Laboratories Inc.,
Subscribers to UL's Listing Service for Electric-Fence
Controllers,
and
Others Interested

SUBJECT: Effective Date for Certain Requirements in the Seventh
Edition of the Standard for Electric-Fence Controllers,
UL 69; SUSPENSION OF EFFECTIVE DATE

UL's Subject 69 bulletin dated November 4, 1987 extended the
effective date for the new and revised requirements in the
seventh edition of the Standard for Electric-Fence Controllers,
UL 69, from October 5, 1988 to October 7, 1990.

SUSPENSION OF EFFECTIVE DATE

As there have been some difficulties in applying some of the
requirements that are effective October 7, 1990, a review was
conducted that has indicated that these requirements need
modification. In order to continue to conduct pertinent
research, consider additional data, and develop proposed
revisions to these requirements, UL is suspending the October 7,
1990 effective date until revised requirements are proposed,
reviewed, and adopted.

UL anticipates issuing proposed revisions to the appropriate
councils, manufacturers, and others interested for their review
and comment in the near future.

This bulletin should be kept with your copy of the standard.

UNDERWRITERS LABORATORIES INC.

REVIEWED BY:

Susan Gill

SUSAN GILL (Ext. 2090)
Project Engineer
Standards Department

A. M. Bell

A. M. BELL (Ext. 2915)
Associate Managing Engineer
Electrical Department

SR:DOD



TSD
3/29/90

Melville, New York • (516) 271-6200
Santa Clara, California • (408) 985-2400
Research Triangle Park,
North Carolina • (919) 549-1400

Subject 69

333 Pfingsten Road
Northbrook, IL 60062-2096
April 3, 1990

TO: Electrical Council of Underwriters Laboratories Inc.,
Subscribers to UL's Listing Service for Electric-Fence
Controllers,
and
Others Interested

SUBJECT: Request for Comments on Proposed Requirements for the
Seventh Edition of the Standard for Electric-Fence
Controllers, UL 69; and REQUEST FOR SUGGESTIONS FOR
PROPOSED EFFECTIVE DATE

SUMMARY OF TOPICS:

This bulletin proposes the following changes in requirements:

- (1) *output characteristics intended to reduce the risk of ventricular fibrillation that could cause death; and*
- (2) *testing of abnormal conditions of components that may affect the levels of acceptable output characteristics.*

COMMENTS ON THIS PROPOSAL DUE: AUGUST 7, 1990

* * * * *

Attached, as Appendix A, for your review and comment are proposed requirements for UL 69.

Please note that proposed requirements are of a tentative and early nature and are for review and comment only. Current requirements are to be used to judge a product until these requirements are published in final form.

REQUEST FOR SUGGESTIONS FOR PROPOSED EFFECTIVE DATE

The proposed requirements in paragraphs 22.1, 22.3A, 22.3B, 22.9, 22.15, 23.6, 23.6A, 23.6B, 23.6C, and 23.7; Figure 22.1A; and Table 23.1 will necessitate a review and possible retest of currently Listed products. Therefore, UL specifically requests your suggestions concerning the total number of months that manufacturers will need to submit modified products to UL for

56

April, 1990

investigation to establish compliance with the proposed requirements and to implement the necessary changes in production if the proposals are adopted. The period of time you suggest should not include the time that will be needed by UL to investigate the modified products. UL will consider all suggestions in arriving at what UL believes is a reasonable time for both manufacturers and UL to complete the work each must do.

As the remainder of the requirements will not necessitate a review or additional testing of currently Listed products, UL proposes that these requirements become effective upon publication.

REQUEST FOR COMMENTS ON PROPOSALS

Please provide the following:

1. Your comments concerning the proposed requirements; and
2. Your suggestions for an effective date should these proposals be adopted.

Written comments should be sent to the attention of Susan Gill at UL's Northbrook Office, 333 Pfingsten Road, Northbrook, Illinois 60062. Please reference all correspondence to Subject 69.

All comments should be sent by August 7, 1990.

Unless specifically requested to do otherwise, UL will not acknowledge comments indicating concurrence with these proposals.

UNDERWRITERS LABORATORIES INC.

Susan Gill
SUSAN GILL (Ext. 2090)
Project Engineer
Standards Department

REVIEWED BY:

A. M. Bell
A. M. BELL (Ext. 2915)
Associate Managing Engineer
Electrical Department

SR:DOD

April, 1990

PROPOSED REQUIREMENTS ARE OF A TENTATIVE AND EARLY NATURE AND ARE FOR REVIEW AND COMMENT ONLY. CURRENT REQUIREMENTS ARE TO BE USED TO JUDGE A PRODUCT UNTIL THESE REQUIREMENTS ARE PUBLISHED IN FINAL FORM.

A P P E N D I X A

PROPOSED REQUIREMENTS AND PROPOSED EFFECTIVE DATES
FOR THE SEVENTH EDITION OF THE STANDARD FOR
ELECTRIC-FENCE CONTROLLERS, UL 69

For your convenience in review, proposed additions to existing requirements are shown underlined and proposed deletions are shown ~~lined-out~~. Proposed new requirements are identified by (NEW). In the case of extensively revised paragraphs, the original text is identified by (CURRENT) and is followed by the proposed text identified by (PROPOSED). A paragraph that is proposed to be deleted is identified by (DELETED) and is shown ~~lined-out~~. A paragraph that is unchanged but is included for clarity is identified by (UNCHANGED).

1. Output Characteristics

RATIONALE

UL 69 currently specifies a 0.75 second off period for DC controllers and a 0.90 second off period for AC controllers. These values were implemented based on reaction levels to let-go of electrical conductors. Additional research has indicated that "off" times should reflect heart beats and increased sensitivity when extrasystoles exists. An extrasystole is defined as a heart beat occurring before its normal time in the rhythm of the heart, and followed by a compensatory pause.

Ventricular fibrillation is defined as rapid and irregular contractions of the ventricular portion of the heart, resulting in limited and ineffectual ventricular contractions that pump no blood. Being almost always irreversible in man, it is usually fatal. Ventricular fibrillation can be caused by an electrical current of sufficient magnitude to the heart during the vulnerable part of the heart cycle.

Electric current pulses of a magnitude not sufficiently high to immediately produce ventricular fibrillation can stimulate the heart to produce extrasystole. The ventricular fibrillation threshold can steadily decrease as several extrasystoles follow one another in close succession. A current pulse of lower magnitude can cause ventricular fibrillation, if it occurs at the right time during an extrasystole caused by a previous current pulse.

The proposed current limit for the series of pulses from a fence controller is equivalent to the limit for single (nonrepetitive) pulses. The minimum required interval between pulses must be at least as long as the period of a human heartbeat to assure that no pulse will occur during an extrasystole that may be caused by a previous pulse. The period of a slow normal heartbeat is considered to be approximately 1-1/2 to 1-3/4 seconds.

Therefore, UL is proposing revisions to Section 22, Output Characteristics Test, that would require the minimum interval between pulses to be 2 seconds for the normal operation of a fence controller. This interval would include most likely human heartbeat periods, and would allow an extrasystole created by a current pulse sufficient time to expire before the next current pulse occurs.

IMPACT

These proposals, if adopted, would require that manufacturers modify and retest currently Listed electric-fence controllers to comply with the requirements.

PROPOSALS

(NEW)

4.8A CURRENT PULSE -- A current pulse is considered to have a duration that begins when the absolute value of the instantaneous current exceeds 7 milliamperes for the first time after a required 2 second off time. The pulse is considered to end when the absolute value of the instantaneous current drops below 7 milliamperes at the beginning of the next required 2 second off time.

Paragraph 4.8A added (date of publication)

(NEW)

4.8B PULSE SEGMENT -- A part of a current pulse that may be between any two points of the current pulse waveform.

Paragraph 4.8B added (date of publication)

22. Output Characteristics Test**General**

(CURRENT)

22.1 When the fence controller is tested in accordance with paragraph 22.3 -- 22.15, including any condition or combination of conditions described in Table 22.2.

A. The output characteristics shall be specified in Table 22.1 when the controller is operated under all arrangements of control settings or tap selections available on the fence controller; and

B. The peak of any transient current associated with the output shall be of such a nature that the elapsed time between the increasing and diminishing currents, measured at a 300 milliamperere value, is not more than 300 microseconds.

(PROPOSED)

22.1 A controller is to be operated under all arrangements of control setting or tap selections available on the fence controller, and with the fence controller output connected to the load specified in paragraph 22.6. The output characteristics shall be a series of single pulses that:

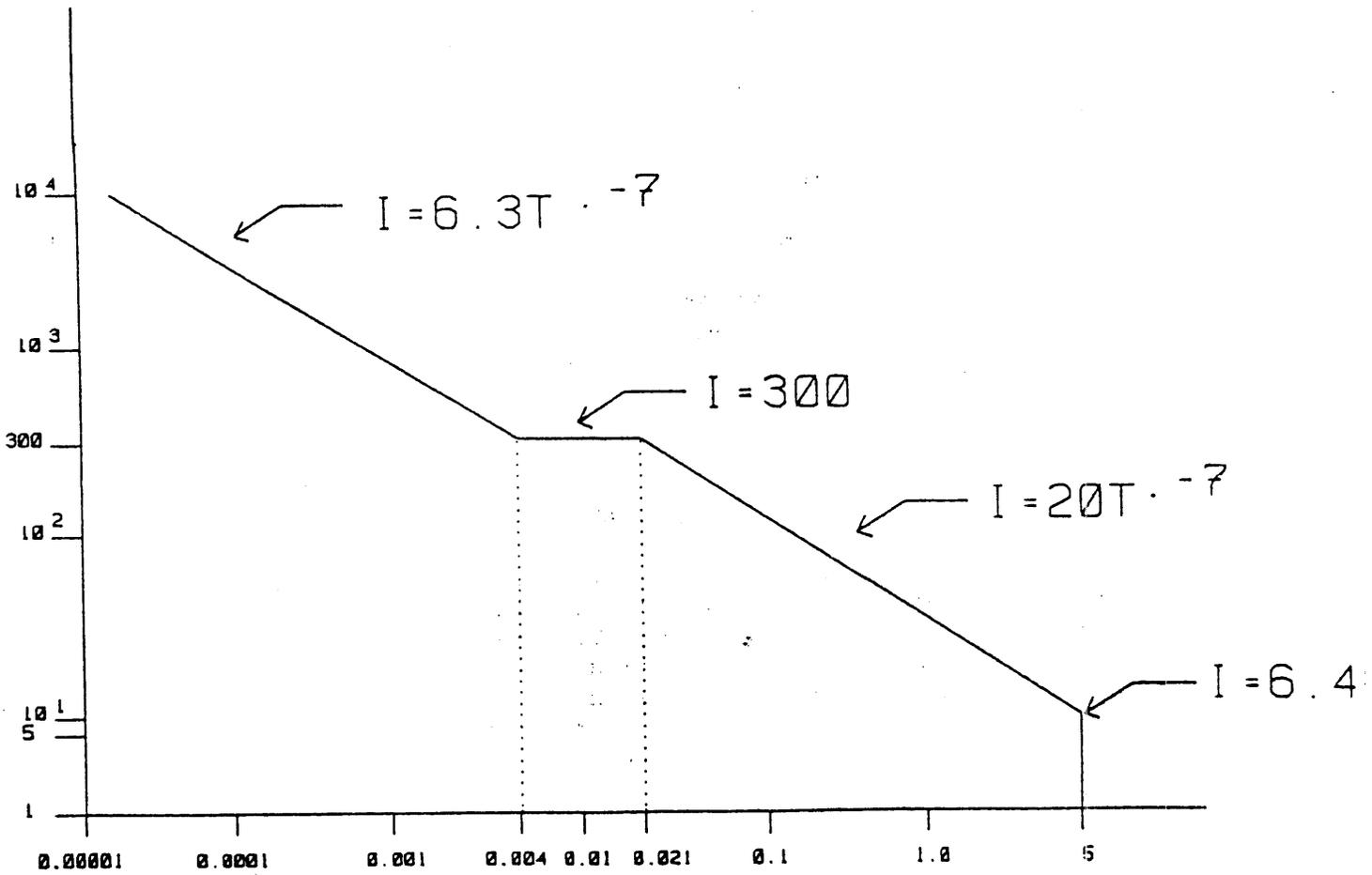
- A. Are separated from each other by off intervals that are at least 2 seconds continuous in duration;
- B. Have an on interval not more than 5 seconds continuous in duration; and
- C. Are as specified in Figure 22.1A.

Revised paragraph 22.1 effective (__ months after date of publication)

(NEW)

FIGURE 22.1A
CURRENT (mA) VERSUS TIME (seconds)

PULSE CURRENT MILLIAMPERES RMS



PULSE DURATION-SECONDS

Added Figure 22.1A effective (__ months after date of publication)

(UNCHANGED)

22.2 A fence controller shall not have continuous ac or dc (uninterrupted) output characteristics.

(DELETED)

TABLE 22.1

OUTPUT CHARACTERISTICS		
Type of Output		
Peak Discharge		
Sinusoidal Discharge		
Maximum acceptable on-period	0.20-second	0.20-second
Minimum acceptable off-period	0.75-second	0.90-second
Maximum acceptable output:		
a. On-period less than	0.1-second	See Figure 22.1 See Figure 22.2
b. On-period	0.1-0.2-second	4-mA-sec See Figure 22.2

Table 22.1 deleted (date of publication)

(DELETED)

22.3 If a fence controller has more than one impulse during the on-period, the output represented by any one impulse shall not be greater than 60 percent of the total output of any one complete on-period. Impulses are considered to be separate when the current falls to and stays below a value of 5 milliamperes for at least 200 microseconds before the next pulse begins.

Paragraph 22.3 deleted (date of publication)

(NEW)

22.3A The rms value of each current pulse or any pulse segment shall be as specified in Figure 22.1A.

Added paragraph 22.3A effective (_ months after date of publication)

(NEW)

22.3B If the output characteristics of the current pulses of a fence controller are not uniform, a minimum of ten randomly selected individual sample pulses are to be measured and compared to Figure 22.1A. All of the sample pulses shall comply with Figure 22.1A.

Added paragraph 22.3B effective (_ months after date of publication)

(DELETED)

Procedure

~~22.4 To determine whether a fence controller complies with the requirements for output characteristics, one sample is to be subjected to all of the tests described in paragraphs 22.9---22.15, 29.1---29.4, 30.1 and 30.2 and Section 23 and two additional samples are to be subjected to a sufficient number of these tests to determine that an acceptable variation in output characteristics---less than a 5-percent change in the direction of, and not exceeding the established limit, or any change from that limit---is maintained. All tests are to be conducted with the controller connected to a supply circuit of rated frequency. Output changes are to be compared for only on set of output terminals.~~

Paragraph 22.4 deleted (date of publication)

22.5 Table 22.2 is a summary of the test conditions to be conductedapplied, if applicable, to determine compliance of a fence controller with the requirements for output characteristics.

Paragraph 22.5 revised (date of publication)

TABLE 22.2
TEST CONDITIONS

Condition	Paragraph Numbers
1. Replaceable devices	12.1
2. Motor-control adjustment	16.5
3. Tap or selector-switch adjustments	22.1
4. Load conditions	22.7 <u>6</u>
5. Operating positions	22.10
6. Temperature range	22.11
7. Voltage range	22.13--22.16
8. Polarity of connection	22.15
9. Pilot lights	23.5
10. Component abnormal	23.6, <u>23.6A</u> , <u>23.6B</u> , <u>23.7</u> , and 23.8
11. Humidity and water spray	26.1--26.3
12. Impact	27.1 and 27.2
13. Ignition	29.1--29.4
14. Endurance	30.1--30.5

Table 22.2 revised (date of publication)

(DELETED)

FIGURE 22.1
MAXIMUM-ACCEPTABLE-OUTPUT-OF-A
PEAK-DISCHARGE-OUTPUT-CONTROLLER²

a--See-Figure-22.2-for-on-period-values-less-than-0.03-second.

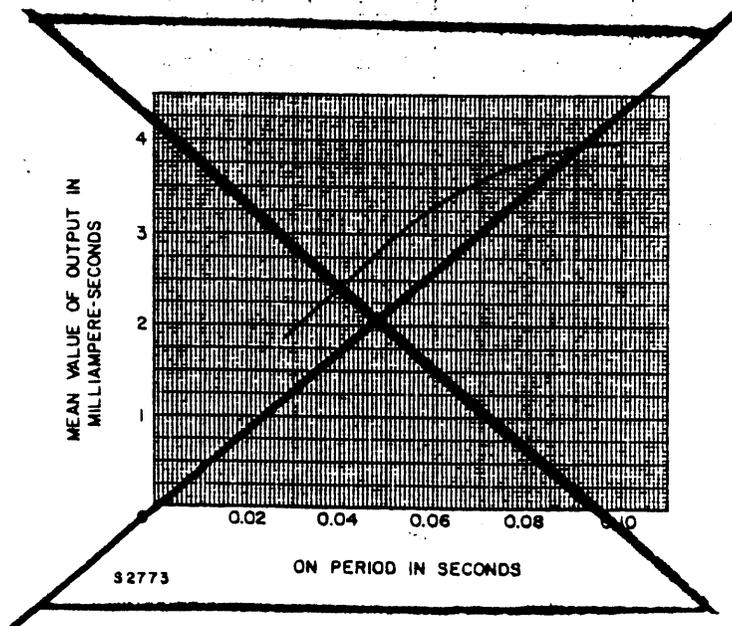


Figure 22.1 deleted (date of publication)

(DELETED)

FIGURE 22.2
MAXIMUM-ACCEPTABLE-OUTPUT-OF-A
PEAK-DISCHARGE-OUTPUT-CONTROLLER

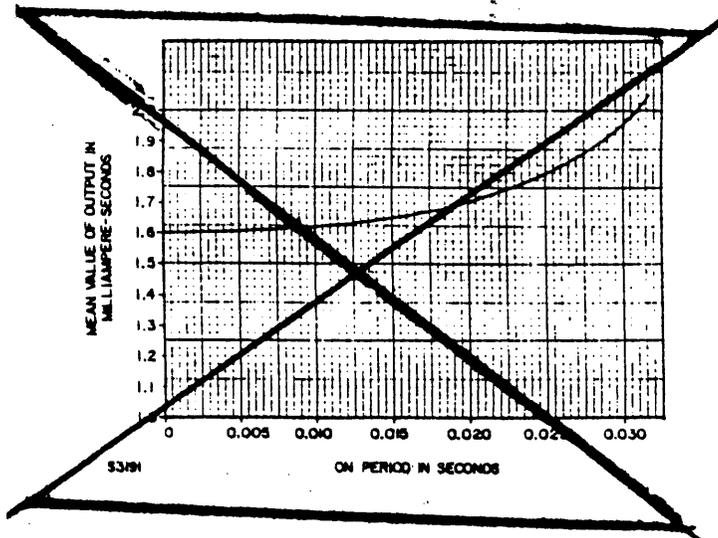


Figure 22.2 deleted (date of publication)

(DELETED)

**FIGURE 22.3
 MAXIMUM-ACCEPTABLE-OUTPUT-OF-A
 SINUSOIDAL-OUTPUT-CONTROLLER**

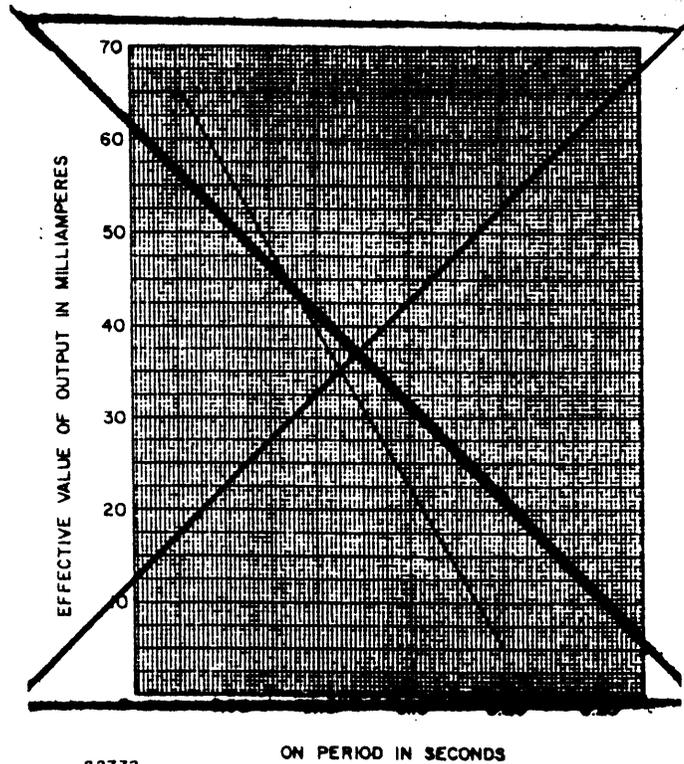


Figure 22.3 deleted (date of publication)

(UNCHANGED)

22.6 In any test involving a load on a fence controller, the load on the secondary output circuit is to be a noninductive resistance capable of being varied to produce maximum output or minimum off-period of the fence controller. The load is to be not less than 500 ohms, including the measuring device, and capacitance may be used in parallel with the resistance load provided the capacitance increases to any extent the output-current on-period or voltage, or decreases the length of time of the off-period.

(UNCHANGED)

22.7 The output current and the on-period of a fence controller are to be determined preferably by means of a cathode-ray oscilloscope. A galvanometer-type oscillograph, if used, is to have a natural frequency of not less than 3000 cycles per second.

(DELETED)

~~22.8 The duration of the on-period of a fence controller having a peak-discharge type of output is to be determined by measuring the time from the instant that the current is available on the output circuit until the current has diminished to an effective value of 5 milliamperes, except that the current is to diminish to an effective value of 0.5 milliamperes when a capacitor is connected as described in paragraph 17.3.~~

Paragraph 22.8 deleted (date of publication)

Operating Position

22.9 The output characteristics of a fence controller shall comply with the requirements in ~~Table 22.1~~ Figure 22.1A and paragraph 22.1 regardless of the position in which it is operated.

Revised paragraph 22.9 effective (__ months after date of publication)

22.15 The off-period of a battery-operated fence controller shall be at least ~~0.75-second~~ 2 seconds when operated at a primary voltage of less than 3 volts for a fence controller having a rating of 6 volts, and at a primary voltage of less than 6 volts for a fence controller having a rating of 12 volts.

Revised paragraph 22.15 effective (__ months after date of publication)

2. Abnormal Component

RATIONALE

Study of previous industry input and UL research has indicated a need to consider semiconductor failure and its effects on the risks of fire or electric shock of a fence controller. Accordingly, UL proposes revisions to the Abnormal Component Test, Section 23. These proposals would coincide with the proposals for the allowable levels of output characteristics discussed in rationale item 1.

IMPACT

These proposals, if adopted, would require an external triggering of a semiconductor that causes a realistic abnormal failure condition. The semiconductor in this induced realistic abnormal failure condition shall not introduce repetitive pulses, after 1 minute of operation at a frequency so as to increase the risk of ventricular fibrillation. Manufacturers would need to modify and retest currently Listed electric-fence controllers to comply with the requirements.

PROPOSALS

Components

23.6 The short- or open-circuiting of a component, other than a transformer, in the timing or output circuits for of a fence controller, or external triggering of a semiconductor device as indicated in paragraph 23.6C shall not increase the result in a risk of fire nor cause the output to become unacceptable when judged in accordance with paragraphs 22.1---22.3 or electric shock. See paragraph 23.6A. The off time of the output current pulse during the abnormal condition is to be 1.7 seconds or longer, or as specified in paragraph 23.6B. The abnormal conditions are to be as specified in Table 23.1 and paragraph 23.7.

Revised paragraph 23.6 effective (__ months after date of publication)

(NEW)

23.6A A risk of fire during abnormal conditions is considered to exist if the cheesecloth or tissue paper specified in paragraph 23.7 glows or ignites. A risk of electric shock during abnormal conditions is considered to exist if the output characteristics do not comply with Figure 22.1A.

Added paragraph 23.6A effective (__ months after date of publication)

(NEW)

23.6B If the off time between pulses decreases to less than 1.7 seconds, then the limits in Figure 22.1A no longer apply and the fence controller shall interrupt its output within 1 minute. Resetting of an operator accessible device and/or replacement of an operator accessible fuse shall not permit operation of the fence controller.

Exception: Interruption of the output is not required if no current pulse or pulse segment during or after the abnormal test exceeds 6.48 milliamperes rms.

Added paragraph 23.6B effective (__ months after date of publication)