

speedrite®
BY TRU-TEST

**NOTHING BUT
SERIOUS
POWER!**



ELECTRIC FENCE SYSTEMS

www.speedrite.com

NO NONSENSE ELECTRIC FENCE SOLUTIONS FOR THE SERIOUS FARMER AND RANCHER

- As a pioneer in electric fencing, Speedrite has carved an international reputation for performance and durability.***
- With a reputation forged by 80 years of electric fencing experience, Speedrite remains the brand that farmers trust with an international reputation for performance and durability.***
- Since 1938, Speedrite has manufactured proven electric fencing products that have weathered the test of time in some of the harshest farming conditions. The Speedrite name stands for leading innovation, reliability and action.***
- We are serious about control, both on the farm and in our factory. If you are serious about controlling valuable stock, step up to the brand with a global reputation for getting the job done.***



ABOUT TRU-TEST GROUP

You will find Tru-Test Group brands in 70 countries worldwide. For more than a century products from Tru-Test Group have been well and truly tested by people on the land. The result is products and services uniquely attuned to farmers' and livestock producers' needs, wherever they may be in the world. For more information on Tru-Test Group and our brands visit www.tru-test.com.

CONTENTS:

ENERGIZERS..... 3-10

Energizer Selection Chart..... 3

Unigizers® (AC + DC + Solar) 5

Solar Energizers and Panels.....7

220V / 110V Energizers..... 9

Battery Energizers.....10

MANAGEMENT TOOLS..... 11

ACCESSORIES..... 12-23

Wire Strainers.....12

Underground Cable.....12

Insulators13

Offsets.....15

Reels & Accessories.....16

Temporary Fence Posts 17

Poli Products..... 17

Gate Hardware.....19

General Fence Accessories21

Equine Connectors.....23

RESOURCE SECTION..... 24-33

Fence Types & Layout25

Animal Voltage Requirements26

Fence Checklist..... 27

Post & Wire Spacings.....28

Solar Fencing Guide.....29

Fence Diagrams 30

Ground Systems31

How to Use a Fault Finder..... 33




























































































































Key Terminology..... 33

NEED MORE HELP?

Visit www.speedrite.com, or contact your local Speedrite sales representative.

You can rely on Speedrite to deliver maximum power. We are proud to hold the world record for the most powerful energizer ever manufactured - the 63000RS. Speedrite energizers are the result of decades of intense research and development. Our energizer range features unique market-leading technologies. See for yourself why Speedrite is the promise of power in action!

ENERGIZER SELECTION CHART

| Model | Remote Capable | Power | | | Livestock / Animals controlled | General fence range* |
|---|---|---|--|---|---|----------------------------|
| | | 110 V | Battery | Solar | | |
| 63000RS (AVAILABLE ONLY IN 220 V) |  |  | | |       | 390 miles (4,000 acres) |
| 36000RS |  |  | | |       | 220 miles (2,500 acres) |
| 18000i |  |  |  |  |       | 120 miles (1,300 acres) |
| 12000i |  |  |  |  |       | 90 miles (500 acres) |
| 6000i |  |  |  |  |       | 60 miles (240 acres) |
| 6000 | |  |  |  |       | 60 miles (240 acres) |
| 3000 | |  |  |  |       | 30 miles (120 acres) |
| 3 J SOLAR SYSTEM | | |  |  |       | 30 miles (120 acres) |
| 2000 | |  |  |  |       | 20 miles (80 acres) |
| 2 J SOLAR SYSTEM | | |  |  |       | 20 miles (80 acres) |
| 1000 | |  |  |  |       | 10 miles (40 acres) |
| 1 J SOLAR SYSTEM | | |  |  |       | 10 miles (40 acres) |
| S500 (INTEGRATED SOLAR ENERGIZER) | | |  |  |       | 5 miles (20 acres) |
| AN90 | | |  OR  |  |    | 1.25 miles (5 acres) |
| AN20 | | |  | |   | 0.6 miles (1 acre) |

*Note: Range claims are a general guide and based on multi-wire fences. Actual range claims depend on many factors including fence and farm conditions, livestock type and environment. Solar panel wattage numbers are only general recommendations and may vary based on geography. Please consult your local electric fence professional to determine the best solar panel for your farm. All Speedrite energizers are low impedance.

EASY TO FOLLOW PACKAGING

Here's what to look for when you are in-store:



KEY TECHNOLOGIES & FEATURES



CYCLIC WAVE® TECHNOLOGY

Provides a cleaner, more powerful pulse, maximizing the energy that travels down the fence for optimal stock control.



LOW ENERGY TERMINAL

Limits energy to below 1.5 J for use around buildings and houses.



BI-POLAR TECHNOLOGY

Enables the user to power a fence system to perform exceptionally well in dry, low conductive soil.



SOLAR COMPATIBLE

Electrify your fence with solar power by connecting solar panels to any Speedrite Unigizer™. The solar panels charge the battery connected to the Unigizer, for reliable animal control.



REMOTE CAPABLE

Using a Speedrite fence remote (with remote capable Speedrite energizers) enables you to switch the energizer on or off from anywhere along the fence line. This makes it easy to manage repairs and maintenance.



LCD VOLTAGE DISPLAY

Displays output voltage, battery voltage and ground voltage. LCD is backlit for viewing in poor light conditions.



INDICATOR LIGHTS

Easy to read light bar display provides an instant measure of the energizer output voltage for quick fence diagnostics.



BATTERY SAVER

Microprocessor technology automatically adjusts the output energy depending on the battery condition. This feature extends battery life and is particularly efficient when used in solar installations.



DAY/NIGHT SENSOR

Automatically adjusts pulse speed to contain or exclude animals based on day or night conditions.



REQUIRES MINIMAL SUNLIGHT

Energizer requires minimal sunlight hours to keep battery at or near full charge. When fully charged selected portable energizers can operate for up to 21 days without sunlight.

LOAD RESPONSE FEATURE

Controls energizer output to match conditions, providing maximum fence voltage for effective animal control.

SPEEDRITE ENERGIZERS ALSO INCLUDE SOME OR ALL OF THESE FEATURES

- **LARGE TERMINALS**
- **LOW IMPEDANCE**
- **LOW INTERFERENCE**
- **RUGGED DESIGN**
- **GROUND MONITORING**
- **VERSATILE MOUNTING OPTIONS**
- **ADJUSTABLE POWER & PULSE SPEEDS**
- **HIGH OUTPUT VOLTAGE**
- **T-POST AND WOOD POST MOUNTING OPTIONS**
- **HALF VOLTAGE TERMINAL**
- **ON / OFF SWITCH**
- **2 YEAR WARRANTY - INCLUDES LIGHTNING**





Speedrite Unigizers give you a versatile 3-in-1 solution to manage your electric fence system. You have the flexibility to choose from either 110V, battery or solar energy to power your electric fence – **ALL-IN-ONE** unit! The 3-in-1 capability allows the Unigizer to be used for all types of fence systems. It's never been easier to create an electric fencing solution.

COMPARING UNIGIZERS

| | 18000i | 12000i | 6000i 6000 | 3000 | 2000 | 1000 |
|---------------------------|--------------------------|-----------------------|-----------------------|-----------------------|----------------------|----------------------|
| DISTANCE / AREA | 120 miles 1,300 acres | 90 miles 500 acres | 60 miles 240 acres | 30 miles 120 acres | 20 miles 80 acres | 10 miles 40 acres |
| MAXIMUM OUTPUT ENERGY | 18.0 J | 12.0 J | 6.0 J | 3.0 J | 2.0 J | 1.0 J |
| MAXIMUM STORED ENERGY | 24.0 J | 16.0 J | 9.0 J | 4.5 J | 2.7 J | 1.4 J |
| NO LOAD VOLTAGE | 10,000 V | 9,100 V | 9,500 V | 11,400 V | 11,000 V | 9,800 V |
| LOAD VOLTAGE @ 500 Ω | 7,800 V | 7,700 V | 6,700 V | 6,200 V | 5,900 V | 5,300 V |
| INPUT VOLTAGE | 12 V / 110 V | 12 V / 110 V | 12 V / 110 V | 12 V / 110 V | 12 V / 110 V | 12 V / 110 V |
| CURRENT CONSUMPTION | 1.4 A | 1.1 A | 700 mA | 290 mA | 180 mA | 95 mA |
| SOLAR PANEL (RECOMMENDED) | 180 watt | 120 watt | 60 watt | 30 watt | 20 watt | 10 watt |

To achieve the peak performance of your energizer, it is essential you have the correct number of ground rods. Please refer to your user manual for this number.

NOTE: Area recommendations are a guide only and in multiple wire terms. Performance will be affected by the condition of your fence or environment.



18000i (821014)

Powers up to 120 miles / 1,300 acres of fence
18 J maximum output energy (24 J stored energy)

- Ⓐ Cyclic Wave® technology
- Ⓐ Low energy terminal
- ☀ Solar compatible (180 watt panel)
- 📶 Remote capable (ST102 remote sold separately)
- 📺 LCD Voltage Display
- 💡 Indicator lights
- 🔋 Battery saver
- 🌙 Day/Night sensor
- 🔌 Large terminals
- ⚡ Low impedance
- 🛡 Low interference
- 🔍 Ground monitoring
- 🔧 Versatile mounting options
- ⚙ Adjustable power & pulse speeds
- ⚡ Half voltage terminal
- 📅 2 year warranty - Includes lightning

Replaces the 20000R

Includes 110V power adaptor & battery leads.



12000i (814086)

Powers up to 90 miles / 500 acres of fence
12 J maximum output energy (16 J stored energy)

- Ⓐ Cyclic Wave® technology
- Ⓐ Bi-polar technology
- ☀ Solar compatible (120 watt panel)
- 📶 Remote capable (ST102 remote sold separately)
- 📺 LCD Voltage Display
- 💡 Indicator lights
- 🔋 Battery saver
- 🌙 Day/Night sensor
- 🔌 Large terminals
- ⚡ Low impedance
- 🛡 Low interference
- 🔍 Ground monitoring
- 🔧 Versatile mounting options
- ⚙ Adjustable power & pulse speeds
- ⚡ Half voltage terminal
- 📅 2 year warranty - Includes lightning

Includes 110V power adaptor & battery leads.



6000i / 6000 (812654) / (812648)

Powers up to 60 miles / 240 acres of fence
6 J maximum output energy (9 J stored energy)

- | | |
|---|--|
| <ul style="list-style-type: none"> ⚡ Cyclic Wave® technology ⚡ Bi-polar technology ☀ Solar compatible (60 watt panel) 💡 Indicator lights 🔋 Battery saver 🌙 Day/Night sensor 🔌 Large terminals 📶 Low impedance 📶 Low interference 🔧 Versatile mounting options | <ul style="list-style-type: none"> ⚡ Adjustable power & pulse speeds ⚡ Half voltage terminal 🛡 2 year warranty - Includes lightning <p>6000i only -</p> <ul style="list-style-type: none"> 📶 Remote capable (ST102 remote included) 📶 LCD Voltage Display 📶 Ground Monitoring |
|---|--|

Includes 110V power adaptor & battery leads.



3000 (809448)

Powers up to 30 miles / 120 acres of fence
3 J maximum output energy (4.5 J stored energy)

- | | |
|--|---|
| <ul style="list-style-type: none"> ☀ Solar compatible (30 watt panel) 💡 Indicator lights 🌙 Day/Night sensor | <ul style="list-style-type: none"> 🔌 Large terminals 📶 Low impedance 🔧 Versatile mounting options ⚡ Adjustable power & pulse speeds 🛡 2 year warranty - Includes lightning |
|--|---|

Includes 110V power adaptor, battery leads, & fence leads.



2000 (809447)

Powers up to 20 miles / 80 acres of fence
2 J maximum output energy (2.7 J stored energy)

- | | |
|--|---|
| <ul style="list-style-type: none"> ☀ Solar compatible (20 watt panel) 💡 Indicator lights 🌙 Day/Night sensor | <ul style="list-style-type: none"> 🔌 Large terminals 📶 Low impedance 🔧 Versatile mounting options ⚡ Adjustable power & pulse speeds 🛡 2 year warranty - Includes lightning |
|--|---|

Includes 110V power adaptor, battery leads, & fence leads.



1000 (809446)

Powers up to 10 miles / 40 acres of fence
1 J maximum output energy (1.4 J stored energy)

- | | |
|--|---|
| <ul style="list-style-type: none"> ☀ Solar compatible (10 watt panel) 💡 Indicator lights 🌙 Day/Night sensor | <ul style="list-style-type: none"> 🔌 Large terminals 📶 Low impedance 🔧 Versatile mounting options ⚡ Adjustable power & pulse speeds 🛡 2 year warranty - Includes lightning |
|--|---|

Includes 110V power adaptor, battery leads, & fence leads.

Speedrite offers multiple solar options which provide outstanding performance in small remote areas or larger areas where electricity is not available.

COMPARING SOLAR ENERGIZERS

| | 3 J SOLAR SYSTEM | 2 J SOLAR SYSTEM | 1 J SOLAR SYSTEM | S500 |
|------------------------|-----------------------|----------------------|----------------------|--------------------------------|
| DISTANCE/AREA | 30 miles 120 acres | 20 miles 80 acres | 10 miles 40 acres | 5 miles 20 acres |
| MAXIMUM OUTPUT ENERGY | 3.0 J | 2.0 J | 1.0 J | 0.50 J |
| MAXIMUM STORED ENERGY | 4.5 J | 2.7 J | 1.4 J | 0.63 J |
| NO LOAD VOLTAGE | 11,400 V | 11,000 V | 9,800 V | 9,500 V |
| LOAD VOLTAGE @ 2,000 Ω | 9,500 V | 9,000 V | 8,100 V | 7,400 V |
| LOAD VOLTAGE @ 1,000 Ω | 8,000 V | 7,700 V | 6,900 V | 6,100 V |
| LOAD VOLTAGE @ 500 Ω | 6,200 V | 5,900 V | 5,300 V | 4,600 V |
| CURRENT CONSUMPTION | 290 mA | 180 mA | 95 mA | N/A |
| BATTERY TYPE | 12 V battery | 12 V battery | 12 V battery | 12 V internal gel cell battery |
| SOLAR PANEL | 30 watt | 20 watt | 10 watt | 5 watt |




To achieve the peak performance of your energizer, it is essential you have the correct number of ground rods. Please refer to your user manual for this number.

NOTE: Area recommendations are a guide only and in multiple wire terms. Performance will be affected by the condition of your fence or environment."



3 J SOLAR SYSTEM (820140)

Powers up to 30 miles / 120 acres of fence
3 J maximum output energy (4.5 J stored energy)




-  Solar compatible
-  Indicator lights
-  Day/Night sensor
- Large terminals
- Low impedance
- Versatile mounting options
- Adjustable power & pulse speeds
- 2 year warranty - Includes lightning

System includes: Speedrite 3000 Unigizer, 30 watt solar panel with voltage regulator, solid steel powder-coated frame and battery box. Requires 12 V deep cycle battery (not included).



2 J SOLAR SYSTEM (820138)

Powers up to 20 miles / 80 acres of fence
2 J maximum output energy (2.7 J stored energy)

-  Solar compatible
-  Indicator lights
-  Day/Night sensor
- Large terminals
- Low impedance
- Versatile mounting options
- Adjustable power & pulse speeds
- 2 year warranty - Includes lightning

System includes: Speedrite 2000 Unigizer, 20 watt solar panel with voltage regulator, solid steel powder-coated frame and battery box. Requires 12 V deep cycle battery (not included).



1 J SOLAR SYSTEM (819156)

Powers up to 10 miles / 40 acres of fence
1 J maximum output energy (1.4 J stored energy)

- Solar compatible
- Indicator lights
- Day/Night sensor
- Large terminals
- Low impedance
- Versatile mounting options
- Adjustable power & pulse speeds
- 2 year warranty - Includes lightning

System includes: Speedrite 1000 Unigizer, 10 watt solar panel with voltage regulator, solid steel powder-coated frame and battery box. Requires 12 V deep cycle battery (not included).



S500 (814098)

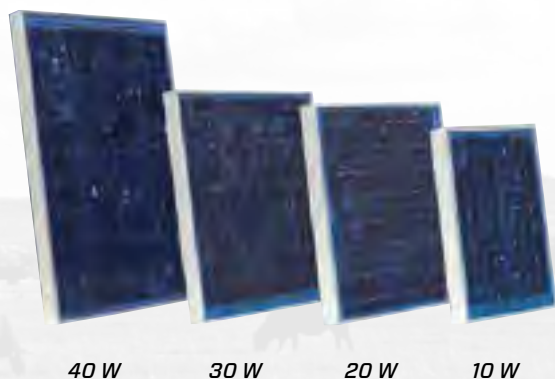
Powers up to 5 miles / 20 acres of fence
0.50 J maximum output energy (0.63 J stored energy)

- Requires minimal sunlight
- Indicator light
- Battery saver
- Low impedance
- Rugged design
- High output voltage
- 5 watt solar panel
- T-post and wood post mounting options
- On/Off switch
- 2 year warranty - Includes lightning*

Includes internal rechargeable 12 volt gel cell battery and fence leads.

*Excludes battery. Batteries fitted inside energizers have a 90 day warranty.

SOLAR PANELS & ACCESSORIES



40 W

30 W

20 W

10 W

Speedrite solar panels provide fast charging of batteries through superior conversion efficiency of sunlight to electrical current. A full range of panel sizes are available to meet individual requirements.

- Premium, highly efficient polycrystalline panels
- Rugged aluminum framing
- Diodes and regulators are used to prevent overcharging of batteries.

SOLAR PANEL SPECIFICATIONS

| SOLAR PANEL | MAXIMUM POWER | CURRENT AT MAX POWER | VOLTAGE AT MAX POWER |
|----------------|---------------|----------------------|----------------------|
| 10 W (808186) | 10 w | 0.59 A | 16.8 V |
| 20 W (808187) | 20 w | 1.19 A | 16.8 V |
| 30 W (SP30W-1) | 30 w | 1.78 A | 16.8 V |
| 40 W (808188) | 40 w | 2.31 A | 17.3 V |

ACCESSORIES

Improve the performance of your solar system set up with one (or more) of the following products:

- 808189 - Larger bracket for 40 watt solar panel
- SS100 - Bracket for double mounting 10 w, 20 w, or 30 w panels
- 815445 - Portable Solar Stand with Battery Box
- 811040 - Solar Panel Regulator

220 V / 110 V ENERGIZERS

Speedrite energizers are the result of decades of intense research and development. Our energizer range features unique technologies which gives them a market leading edge. Speedrite is the promise of power in action!

COMPARING 220 V / 110 V ENERGIZERS

For 110 V powered Unigizer® specifications see Comparing Unigizers table on pg 5.

| | 63000RS | 36000RS |
|-----------------------|--------------------------|--------------------------|
| DISTANCE/AREA | 390 miles 4,000 acres | 220 miles 2,500 acres |
| MAXIMUM OUTPUT ENERGY | 63.0 J | 36.0 J |
| MAXIMUM STORED ENERGY | 97.0 J | 54.0 J |
| NO LOAD VOLTAGE | 9,500 V | 9,300 V |
| LOAD VOLTAGE @ 500 Ω | 8,500 V | 8,600 V |
| LOAD VOLTAGE @ 100 Ω | 9,600 V | 8,100 V |
| INPUT VOLTAGE | 220 V | 110 V |

To achieve the peak performance of your energizer, it is essential you have the correct number of ground rods. Please refer to your user manual for this number.

NOTE: Area recommendations are a guide only and in multiple wire terms. Performance will be affected by the condition of your fence or environment.







63000RS (816643)

63000RS Remote with Fault Finder included

MOST POWERFUL ENERGIZER IN THE WORLD*

Powers up to 390 miles / 4,000 acres of fence
63 J maximum output energy (97 J stored energy)

- | | |
|---|--------------------------------------|
|  Cyclic Wave™ technology | Large terminals |
|  Bi-polar technology | Low impedance |
|  Remote capable | Low interference |
|  Indicator lights | Rugged design |
| Load response feature | Half voltage terminal |
| | 2 year warranty - Includes lightning |

*As of June 2012





This product is not approved for sale in Canada



36000RS (806507)

36000RS Remote with Fault Finder included

Powers up to 220 miles / 2,500 acres fence
36 J maximum output energy (54 J stored energy)

- | | |
|---|--------------------------------------|
|  Cyclic Wave™ technology | Large terminals |
|  Bi-polar technology | Low impedance |
|  Remote capable | Low interference |
|  Indicator lights | Rugged design |
| | Half voltage terminal |
| | 2 year warranty - Includes lightning |

BATTERY ENERGIZERS



Speedrite battery energizers provide a portable and practical solution for strip grazing and small electric fence systems.

COMPARING BATTERY ENERGIZERS

For battery powered Unigizer® specifications see Comparing Unigizers table on pg 5.

| | AN90 | AN20 |
|--------------------------------|---|-----------------|
| DISTANCE/AREA | 1.25 miles | 0.6 miles |
| MAXIMUM OUTPUT ENERGY | 0.12 J | 0.04 J |
| MAXIMUM STORED ENERGY | 0.16 J | 0.05 J |
| NO LOAD VOLTAGE | 8,000 V | 5,800 V |
| LOAD VOLTAGE @ 2000 Ω | 4,500 V | 2,800 V |
| CURRENT CONSUMPTION | 7-24 mA | 14 mA |
| SOLAR PANEL | 1 watt (optional) | N/A |
| BATTERY TYPE (SOLD SEPARATELY) | 4 x D batteries or 12 V or 6 V external battery | 2 x D batteries |

To achieve the peak performance of your energizer, it is essential you have the correct number of ground rods. Please refer to your user manual for this number.

NOTE: Area recommendations are a guide only and in multiple wire terms. Performance will be affected by the condition of your fence or environment.



AN90 (SE117-01)

AN90 WITH STAND (SE117WS-01)

AN90 WITH SOLAR* (814072)

POWERFUL AND VERSATILE STRIP GRAZING UNIT.

Powers up to 1.25 miles / 5 acres of fence
0.12 J maximum output energy (0.16 J stored energy)

Low impedance
 Simple set up
 On/Off switch
 Fast & slow options
 Optional tread-in stand (SA063)
 Flashing LED

2 year warranty - Includes lightning
 * 1 watt solar panel runs energizer during the day & extends battery life. Solar panel is sold separately (819670)



EQUINE CORRAL KIT (SA1001)

'Fence-in-a-bag' kit includes basic assortment of items to easily construct a reliable temporary electric fence.

Great for rodeos, horse shows, or trail rides.

Works with most types of animals.

Kit includes: AN20 energizer, 12 SENTINEL tread-in posts, No Kick handle, 660' roll of 1/2" polytape, reel, carry bag, assembly instructions.



AN20 (814888)

SMALL, LIGHTWEIGHT ENERGIZER RUNS ON 2 D BATTERIES!

Powers up to 0.6 miles / 1 acre of fence
0.04 J maximum output energy (0.05 J stored energy)

Low impedance
 Simple set up
 On/Off switch

Intelligent battery management to extend battery life
 2 year warranty - Includes lightning

Management Tools



Remote with Fault Finder

- Turns compatible Speedrite energizer on or off from anywhere along the fence line
- Quickly & easily locates faults along the fence line
- Large back-lit display
- Displays current, voltage & current direction simultaneously
- Displays previous current reading to compare values
- Audible current indicator
- Convenient belt clip
- Insulated, rugged, water resistant case
- Replaceable 9 V battery
- Low battery warning system
- Automatic energizer polarity detection
- 1 year warranty*

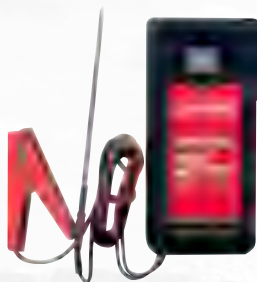
ST102



Fault Finder

- Quickly & easily locates faults along the fence line
- Large back-lit display
- Displays current, voltage & current direction simultaneously
- Displays previous current reading to compare values
- Audible current indicator
- Convenient belt clip
- Insulated, rugged, water resistant case
- Replaceable 9 V battery
- Low battery warning system
- Automatic energizer polarity detection
- Can be used with all energizers
- 1 year warranty*

ST100



Digital Voltmeter

- Tests fence, energizer, and ground system
- Ground probe provides accurate fence to ground voltage measurements
- Readings from 200 V to 9,900 V (0.2 kV to 9.9 kV)
- Rugged design
- Automatic On/Off
- Replaceable 9V battery
- 1 year warranty*

822643



Fence Alert™

- Warning light begins flashing when voltage is too low
- Visible up to 1 mile away
- Rugged impact & water resistant case
- Can be used on any type of electric fence including steel or aluminum wire and on portable poli products
- Works with all energizers
- No ground wires or external power sources required
- Typical battery life 5 years on standby or up to 2 weeks of continuous flashing
- Two preset voltage triggers can be selected
- Replaceable CR2032 lithium button cell battery
- 1 year warranty*

ST0303

*Excludes battery. Batteries fitted inside management tools have a 90 day warranty.

Wire Strainers



Spring Clip Strainer

- Suitable for high strain & in-line use
- Spring clip design for easy tensioning
- Rust resistant
- Rugged & easy to use
- Galvanized frame with aluminum spool
- Use with Speedrite Strainer Handle (814209)
- 10 per pack

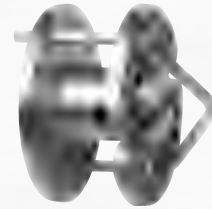
SA100-50



Bullnose Insulated Strainer

- Suitable for high strain use
- Spring clip design for easy tensioning
- Heavy duty insulator protects against arcing
- Rust resistant
- Rugged & easy to use
- Galvanized frame with aluminum spool
- UV stabilized for long life
- Use with Speedrite Strainer Handle (814209)
- 10 per pack

814570



In Line Strainer

- Suitable for high strain use
- Can be added to fence without cutting wire
- Rust resistant
- Rugged & easy to use
- Lightweight high strength aluminum construction
- Designed to work with Speedrite In Line Strainer Handle (RSTDSPH) or 1/2" (12 mm) drive ratchet
- 25 per pack

813398

Underground Cable



Extreme Underground Cable

- Ideal for large properties with high powered energizers, including all Speedrite energizers with 12 joules of output energy or greater
- 10 ga (2.7 mm) aluminum coated steel for extreme conductivity
- 8 x more conductive than standard underground cable
- UV stabilized for long life

806052 10 ga x 330' (2.7 mm x 100 m)



Premium Underground Cable

- 12.5 ga (2.5 mm) galvanized steel
- 3 x more conductive than standard underground cable
- UV stabilized for long life

806042 12.5 ga x 82' (2.5 mm x 25 m)
806045 12.5 ga x 165' (2.5 mm x 50 m)
806046 12.5 ga x 330' (2.5 mm x 100 m)



Insulators

Speedrite insulators are reliable, strong and UV stabilized for long life.
All Speedrite insulators come with a **10 YEAR WARRANTY**.



Dual-Purpose Pinlock

- Works with T-posts, wood, or metal pipe posts
- Sturdy pin for longer life
- Reinforced jaws
- Pinlock allows for easy wire removal
- UV stabilized for long life
- 25 per pack

SI037 Black



Jumbo Dual Purpose Pinlock

- Works with T-posts, wood, or metal pipe posts
- Sturdy pin for longer life
- Reinforced jaws
- Pinlock allows for easy wire removal
- Large jaws hold up to $\frac{5}{16}$ " (8 mm) rope, braid, or coated wire
- UV stabilized for long life
- 25 per pack

814585 White



T-Post Wide Tape

- Securely holds up to 2" (50 mm) wide tape
- Easily clips onto T-post for a secure fit
- UV stabilized for long life
- 25 per pack

814699 White



T-Post Topper

- Fits over T-posts
- Use with poliwire, $\frac{1}{2}$ " (12 mm) or 1 $\frac{1}{2}$ " (40 mm) politape, rope, braid and coated wire
- Prevents cuts from sharp edges on top of T-posts
- UV stabilized for long life
- 10 per pack

814704 White



Rod Post

- Versatile design holds high tensile wire, poliwire and tape
- Features a flexible front and back design and heavy duty screw nut for a secure fit
- Fits rod posts $\frac{1}{4}$ " to $\frac{9}{16}$ " (6 mm to 14 mm) in diameter
- Back end slot with anti slip-out hooks holds tape up to $\frac{1}{2}$ " (12 mm)
- UV stabilized for long life
- **MADE IN USA**
- 25 per pack

820847 Black



Insultube

- Heavy duty polyethylene tube
- $\frac{3}{16}$ " ID x $\frac{3}{8}$ " OD, 39' (4 mm ID x 9 mm OD, 12 m)

807936 Black



Wood Post Pinlock

- Rugged, high strength pinlock design
- UV stabilized for long life
- Twin spark guards prevent arcing & increased distance from wire to post reduces risk of leakage
- Supports up to 8 ga (4 mm) steel wire
- Unique staple guides
- Design conveniently allows easy removal of wire
- 25 per pack

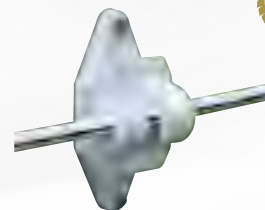
SI027 Black



Wood Post Claw

- Rugged claw design for added strength & support
- UV stabilized for long life
- Twin spark guards prevent arcing & increased distance from wire to post reduces risk of leakage
- Supports up to 8 ga (4 mm) steel wire
- Unique staple guides
- Ribbed claw for added strength and support
- 25 per pack

SI0292 Black



Jumbo Wood Post Claw

- Large jaws hold up to $\frac{5}{16}$ " (8 mm) rope, braid, or coated wire
- Large shield prevents arcing & increased distance from wire to post reduces risk of leakage
- UV stabilized for long life
- 25 per pack

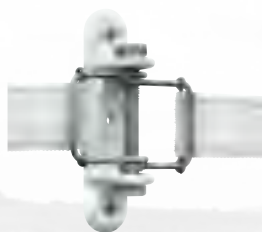
814696 White



Wood Post Wide Tape

- Securely holds up to 2" (50 mm) wide tape
- Can also be used with metal pipe posts
- UV stabilized for long life
- 25 per pack

814594 White



Wide Tape Corner / End Strain

- Use with up to $1\frac{1}{2}$ " (40 mm) wide tape
- For use on wood or metal pipe posts
- UV stabilized for long life
- 2 per pack

814591 White



24" Wrap Around

- For use on wood or metal pipe posts
- Reinforced with insert
- 24" (610 mm) length
- 10 per pack

SI704 Black

END STRAIN INSULATORS



Heavy-Duty White End Strain

- Suitable for high strain use
- Reinforced glass filled polymer for maximum strength
- Deep grooves hold wire in place & prevent twisting
- Long leakage path prevents arcing
- Use with most sizes of fence wire
- Superior UV stabilization for long life
- 5 per pack

812842 White



Black End Strain

- Suitable for medium strain use
- Deep grooves hold wire in place & prevent twisting
- Long leakage path prevents arcing
- Use with most sizes of fence wire
- UV stabilized for long life
- 25 per pack

SI031D Black



Porcelain End Strain

- Suitable for high strain use
- Deep grooves hold wire in place & prevent twisting under tension
- High quality long life porcelain
- White glaze finish
- 10 per pack

SI023 White

Offsets

With Speedrite offsets, you keep your current conventional perimeter fence and also get the benefits of an electric fence.



Pinlock Wire Offset

- Extends the life of barb and woven wire fences
- Electrified wire sits 12" (305 mm) from existing fence
- High tensile galvanized steel frame securely attaches to existing fence wire
- PRE-ASSEMBLED, ready to use
- UV stabilized pinlock insulator for easy wire insertion and removal
- Replacement insulator SI025SP
- 50 per carton

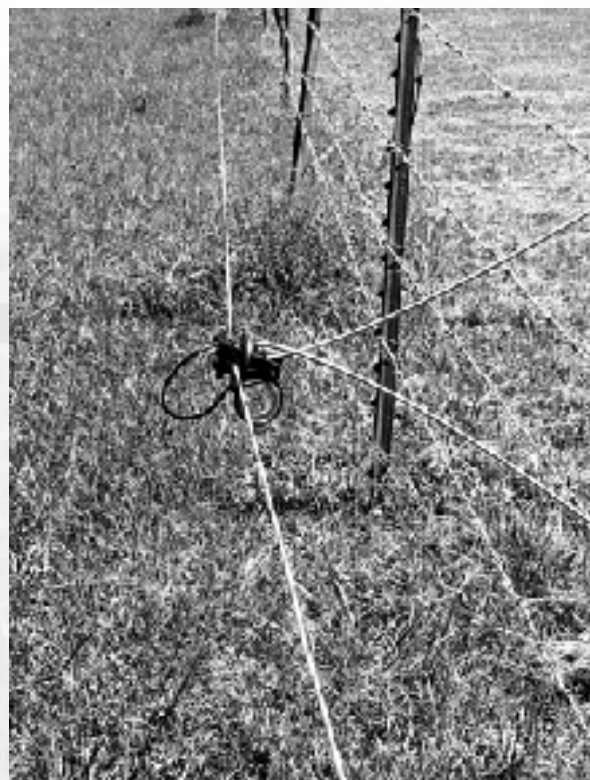
SI060SP Black



Side Fixing Pigtail Standoff

- Galvanized spring steel construction
- UV stabilized for long life
- 5 per pack

807867 White 10 1/2" (270 mm)
807873 White 6" (150 mm)



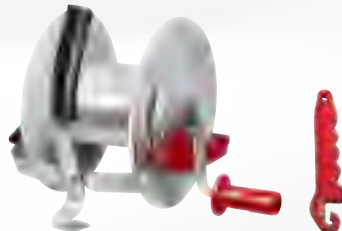
Reels & Accessories



Geared Mega Reel

- Holds 3,300' (1,000 m) poliwire or 1,320' (400 m) ½" (12 mm) politape
- 3:1 gear ratio with a solid steel crank
- Frame insulated from spool
- Use with carry handle or on mounting post
- Galvanized steel frame
- Rugged steel locking system
- UV stabilized for long life

SR021



Geared Reel

- Holds 1,650' (500 m) poliwire or 660' (200 m) ½" (12 mm) politape
- 3:1 gear ratio with a solid steel crank
- Frame insulated from spool
- Use with carry handle or on mounting post
- Galvanized steel frame
- Rugged steel locking system
- Replacement bobbin (805551)
- UV stabilized for long life

Includes: Speedrite No Kick Handle

SR020



Jumbo Reel

- Holds 3,300' (1,000 m) poliwire or 1,320' (400 m) politape
- Frame insulated from spool
- Use with carry handle or on mounting post
- Galvanized steel frame
- Rugged steel locking system
- Replacement bobbin (SR002)
- UV stabilized for long life

SR001



Econo Reel

- Holds 1,650' (500 m) poliwire or 660' (200 m) ½" (12 mm) politape
- Frame insulated from spool
- Use with carry handle or on mounting post
- Galvanized steel frame
- Rugged steel locking system
- Innovative notch frame design for easy & secure fence attachment
- Replacement bobbin (814357)
- UV stabilized for long life

SR015



Reel Mounting Post

- Sturdy galvanized steel construction
- 3 holes for use in mounting up to 3 reels of poli products

Includes anchor chain

814844



Jumper Leads

- Recommended for ensuring good electrical connections in temporary fencing
- Single jumper lead set contains 1 alligator clip on each end for connection between two fence wires

SA004

Temporary Fence Posts

Pigtail Tread-In



- Use with poliwire or politape ½" (12 mm)
- Easy to move, steel step-in post with large foot and insulated top
- Measures 41" (1,040 mm) in total height (34" (870 mm) height above ground)

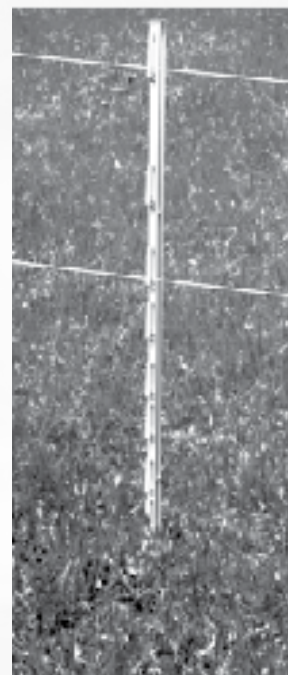
806445

SENTINEL Heavy Duty Tread-In



- 49" (1,125 mm) tall post with 8 different positions for poliwire, politape, or poliropo
- Simple step-in feature and pointed tip for easy installation
- High strength "H" profile for rigidity
- UV stabilized for long life
- **MADE IN USA**
- 50 per carton

820013 White
820014 Black



Wire, Tape, Braid and Rope Poli Products

Select between the Extreme, Premium and Poli range depending on your temporary fence needs. All Speedrite Poli products are UV stabilized for long life.



The Speedrite EXTREME range provides the ultimate in conductivity and strength for demanding professional livestock / animal control applications. Tinned copper strands for extreme shock power.*

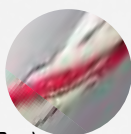


The Speedrite PREMIUM range provides greater conductivity and strength for more demanding professional livestock / animal control applications. Stainless steel strands for greater shock power.



The Speedrite POLI range provides effective conductivity and strength for professional livestock / animal control applications. Stainless steel strands for shock power.

* Some Extreme products in the Speedrite Equine range also contain stainless steel strands.

PERFORMANCE COMPARISON TABLE
WIRE
FEATURES
EXTREME WIRE


- 6 tinned copper strands
- 105 x more conductive than standard poliwire
- Increased shocking and stopping power, ideal for long lengths of temporary fence
- White with red weave for ultimate visibility
- UV stabilized for long life

SP040 White 660' (200 m)

SP041 White 1,320' (400 m)

815241 White 2,640' (800 m)

PREMIUM WIRE


- 9 stainless steel strands
- 1.5 x more conductive than standard poliwire
- Ideal for temporary fencing and strip grazing
- UV stabilized for long life

SP211 White 1,320' (400 m)

POLIWIRES

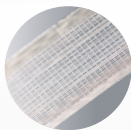

- 6 stainless steel strands
- Ideal for temporary fencing and strip grazing
- UV stabilized for long life

SP013 White 660' (200 m)

SP011 White 1,650' (500 m)

TAPE
FEATURES
EXTREME TAPE

1 1/2" (40 MM)

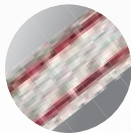


- 10 total strands
- 5 tinned copper strands
- 5 stainless steel strands
- 99 x more conductive than standard politape
- Ideal for semi-permanent and temporary fencing
- 1 1/2" (40 mm) width with white and red weave for ultimate visibility
- UV stabilized for long life

814588 White 660' (200 m)

EXTREME TAPE

1/2" (12 MM)



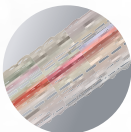
- 6 tinned copper strands
- 106 x more conductive than standard politape
- Increased shocking and stopping power, ideal for long lengths of temporary fence
- Heavy duty tape, tightly woven for superior strength
- 1/2" (12 mm) width with white & red weave for ultimate visibility
- UV stabilized for long life

SP050 White 660' (200 m)

SP052 White 1,320' (400 m)

POLITAPE

1/2" (12 MM)

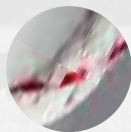


- 6 stainless steel strands
- Ideal for temporary fencing and strip grazing
- Tightly woven for superior strength
- 1/2" (12 mm) width with orange & white weave for high visibility
- UV stabilized for long life

SP016 White 660' (200 m)

BRAID
FEATURES
EXTREME BRAID

1/4" (7 MM)

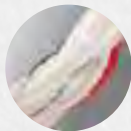


- 8 total strands
- 4 tinned copper strands for ultimate conductivity
- 4 stainless steel strands for ultimate strength
- 68 x more conductive than standard poliwire
- Increased shocking & stopping power, ideal for temporary and semi-permanent fence
- White with red weave for ultimate visibility
- UV stabilized for long life

814540 White 660' (200 m)

ROPE
FEATURES
EXTREME ROPE

1/4" (6 MM)

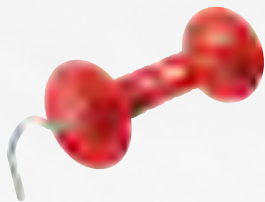


- 6 total strands
- 3 tinned copper strands
- 3 stainless steel strands
- 52 x more conductive than standard poliwire
- Ideal for temporary and semi-permanent fencing
- 1/4" (6 mm) diameter for greater visibility and strength
- UV stabilized for long life

814539 White 660' (200 m)

| RESISTANCE (OHMS / MILE) | VOLTAGE AT START OF FENCE (V) | VOLTAGE AT 330' (V) | VOLTAGE AT 1,650' (V) | VOLTAGE AT 3,300' (V) |
|--------------------------------|-------------------------------------|------------------------|--------------------------|--------------------------|
| 105 | 8,000 | 7,900 | 7,500 | 7,100 |
| 7,000 | 8,000 | 4,200 | 1,500 | 800 |
| 11,000 | 8,000 | 3,400 | 1,000 | 550 |
| 112 | 8,000 | 7,900 | 7,500 | 7,000 |
| 105 | 8,000 | 7,900 | 7,500 | 7,100 |
| 11,000 | 8,000 | 3,200 | 950 | 500 |
| 160 | 8,000 | 7,800 | 7,300 | 6,700 |
| 210 | 8,000 | 7,800 | 7,100 | 6,300 |

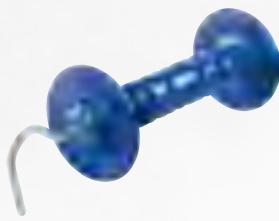
Gate Hardware



Heavy Duty Gate Break Handle

- Non-slip insulated grip
- High tensile galvanized spring
- Heavy duty, rugged body with large protective guards
- High density, UV stabilized polyethylene for long life

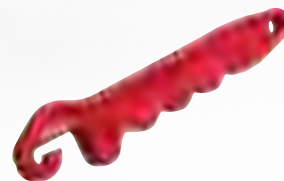
807888 Red



Compression Gate Break Handle

- Non-slip insulated grip
- High tensile, heavy duty spring compresses under tension, preventing over-stretching
- High density, UV stabilized polyethylene for long life

SA042C Blue



No Kick Handle

- Used when an insulated connection is required
- For use in temporary fence application
- Slim design for ease of use
- Strong, UV resistant design

SA013 Red



Spring Gate

- Electrifies gateways up to 26' (8 m) wide
- Versatile & easy to install
- Fully insulated, heavy duty handle with protective guards & non-slip grip
- Galvanized rust resistant spring
- Replacement spring 814632

Includes: Heavy duty insulated handle, wood post pinlock insulator, gate activator & galvanized spring.

SA0448M



Bungy Gate

- Electrifies gateways from 11' (3.5 m) to 23' (7 m) wide
- Versatile & easy to install
- Fully insulated handle with protective guards & non-slip grip
- Bungy cord with four stainless steel strands provides extreme stretch, high conductivity and maximum shock exposure
- Extra bungy cord 805194, 165' (50 m) roll

Includes: Insulated handle, wood post pinlock insulator, gate activator, high visibility flag & bungy cord.

813719



Gate Activator

- For use with all Speedrite gate break handles
- 3 connection points for flexibility
- Long lasting hot dipped galvanized steel

SA040 Black



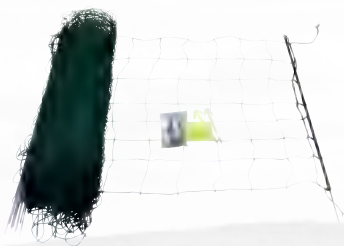
Tape Gate Buckle

- Use with Speedrite gate handles to attach up to 1½" (40 mm) wide tape
- Galvanized steel
- 10 per pack

SA062



NETTING

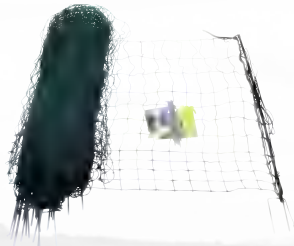


Sheep Netting

- 165' length (50 m), 35" (850 mm) tall, single-spike posts
- Suitable for sheep and goats
- Green color
- Set up is fast and easy

Includes: Warning sign, corner stakes, repair kit, and installation instructions.

821953



Poultry Netting

- 165' length (50 m), 43" (1,100 mm) tall, double-spike posts
- Green color
- Set up is fast and easy

Includes: Warning sign, corner stakes, repair kit, and installation instructions.

821955



General Fence Accessories



Heavy Duty Joint Clamp

- Creates an effective electrical connection between wires
- Galvanized construction for superior rust resistance
- Claw design to allow multiple connecting wires

SA052



Split Bolt Joint Clamp

- Creates an effective electrical connection between wires
- Solid zinc for superior corrosion resistance
- For wires up to 12 ga (2.7 mm) diameter

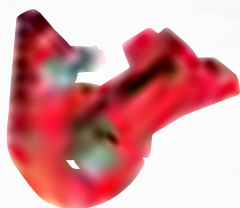
SA049



Wire Links

- Quickly splices 2 lines of fence wire together
- Use with 12.5 ga (2.5 mm) high tensile wire
- Internal spring-loaded clamps securely hold wire

805542



Extreme Cut-Out Switch

- Use to isolate sections of electric fence with minimal disruption to your farm
- Long life stainless steel contacts
- Easily sighted on/off position
- UV stabilized for long life
- Recommended for use with Extreme Underground Cable and larger energizers including the 12000i, 18000i, 36000RS and 63000RS

807882



Standard Cut-Out Switch

- Use to isolate sections of electric fence with minimal disruption to your farm
- 2 stainless steel contacts for positive connection
- Highly visible on/off position
- Fits securely onto post
- UV stabilized for long life

SA064



Flood Gate Controller

- Limits energy loss from heavy growth or flooding
- Fully sealed from insects and the environment
- Ideal for use near creeks, streams, river beds & areas prone to flooding

SA038



Ground Rod and Ground Rod Clamp

- 6' (2 m) long galvanized steel ground rod with tapered end
- Heavy duty, brass clamp for use in securing underground cable to ground rod

SA110 Ground Rod
SA112 Ground Rod Clamp



T-Handle Ground Rod

- 30" (760 mm) long galvanized steel ground rod with 6" (150 mm) handle and tapered end
- Ideal for energizers and temporary fences that will be moved frequently

SA111



Warning Sign

- Clear warning for safety
- Signs may be required by law, refer to your local bylaws for more information

SA046



Lightning Diverter

- Redirects lightning to ground minimizing energizer and fence damage
- Simple to use
- Easily mounts to wood post

822024



Heavy Duty Compression Spring

- 9" (230 mm) spring
- Helps properly tension wire on permanent fences
- Made of high quality galvanized steel

805543



Maun Fencing Pliers

- 8" (203 mm) parallel action, side-cutting pliers
- Cuts high tensile wire
- Plastic covered handle

SA070

Equine Connectors

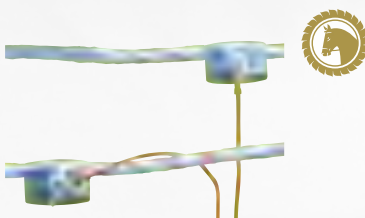
Speedrite offers a range of quality connectors suitable for Equine use. Creating tight connections between fence wires and from fence wire to energizer, connectors help ensure your electric fence is being energized properly.



Rope / Braid to Energizer Connector

- Use to connect polirope or braid strands to energizer

814709



Rope to Rope Connector

- Allows the electricity from one polirope to be transmitted vertically to the polirope below
- Use to connect separate strands of polirope and/or braid

814708



Rope / Braid Clamp

- Ideal for joining polirope or braid together
- 3 per pack

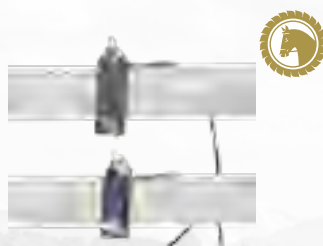
814599



Tape to Energizer Connector

- Use to connect up to 1½" (40 mm) wide politape to energizer

814702



Tape to Tape Connector

- Allows the electricity from one politape to be transmitted vertically to the politape below
- Use to connect separate strands of 1½" (40 mm) wide politape

814822



Wide Tape Joiner / Buckle

- Use to join or splice up to 1½" (40 mm) wide politape
- Made from stainless steel
- 5 per pack

814602



RESOURCE GUIDE

Tips, hints, and other important information to help you get the most from your electric fence.

WHICH TYPE OF ELECTRIC FENCE DO YOU NEED?

| Considerations | Portable/Temporary | Semi-Permanent | Permanent |
|------------------------------------|--|--|--|
| Duration Of Fence Placement | Short—moves frequently | 1–20 Years* | 20–40 Years* |
| Ease Of Construction | Simple and fast | Easy to medium | Medium. Requires some special tools |
| Primary Need | Temporary containment, intensive grazing | Rope / Braid / Wide Tape | Perimeter fencing |
| Key Benefits | Easy to install, use and move | Attractive & safer for horses than standard steel wire | Offers greatest fence life. Requires minimal maintenance |
| Common Post Types | Pigtail or Plastic Tread-In Posts | Wood posts, T-posts, rod posts, metal pipes | Wood posts, T-posts, rod posts, metal pipes |
| Common Wire Types | Poliwire or Politape | Rope, Braid or Wide Tape | 12 ½ gauge high tensile wire |

* This timeframe also indicates the expected fence life using quality products and keeping fence properly maintained.

PLAN YOUR ELECTRIC FENCE LAYOUT

Sketch a diagram and measure the distance of the area you would like to fence.

Grab a pencil and walk around the area you want to fence, measuring and sketching your layout. Also include in your plan:

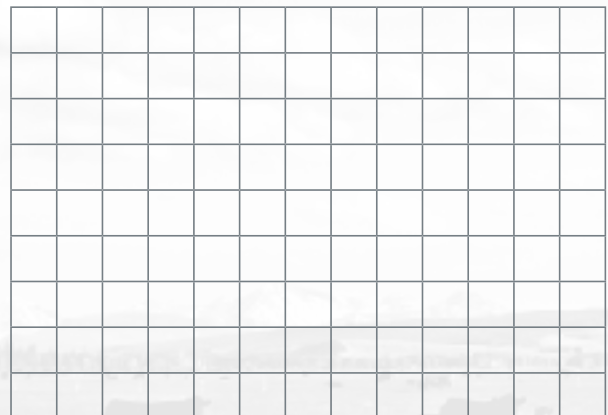
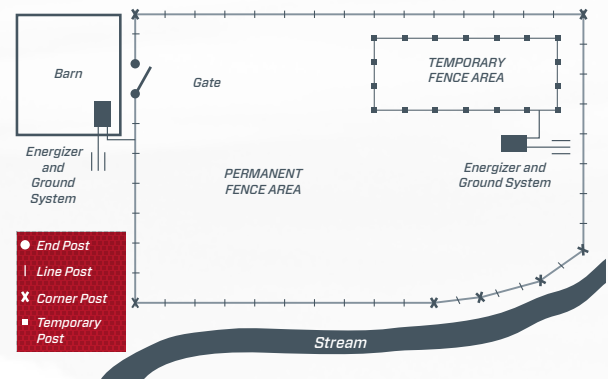
- Location of buildings/ barns enclosed by or sitting adjacent to your fence
- Location of your fence energizer and electrical source (if required)
- Trees, hills, low and/or wet areas or other obstacles. If necessary, it is also a good idea to have your utility company mark any underground cables/lines that may be in the immediate vicinity
- Water supply and feeding locations
- Gate locations
- Fence termination points

As you are sketching your layout consider these questions:

Are you going to use wood posts, steel posts, rod posts, etc.? Or is it just a temporary fence with pigtail or tread-in posts?

What type of gate(s) do you plan on using?

Thankfully, there's a good assortment of Speedrite products (pages 5–23) to fit most of your electric fence needs. Along with your fence layout diagram, please use our handy checklist (page 27) to put together a list of items required to build your electric fence.



ANIMAL VOLTAGE REQUIREMENTS

| Fence Voltage* (Recommended Minimum) | | Characteristics/Tips |
|---|---------------|--|
| Keep In | | |
| Beef Cattle | 2,000–3,000 V | Bulls require a higher voltage as more aggressive. |
| Dairy Cattle | 2000 V | If kept separately, calves and heifers require lower wires and less spacing. |
| Horses | 2,000–3,000 V | Intelligent, learn quickly, easy to control. A fence made of politape, wire or rope is less likely to injure if a spooked horse tries to run through it. |
| Llamas | 4,000–5,000 V | Thick coats insulate from electric shocks so require higher voltage. |
| Deer and Elk | 4,000–5,000V | Spook easily and jump higher than most other animals. Above head height, electric high tensile fence recommended. Space wires close enough to prevent stepping through or heads between wires. |
| Sheep | 4,000–5,000 V | Wool insulates from electric shocks so require higher voltage. |
| Goats | 4,000–5,000 V | Some species have thick insulating coats requiring higher voltage. Tend to test fences—space wires low to ground and high enough to prevent being jumped. |
| Pigs | 2,000 V | Start wires close to ground as rooting animal and finish at nose level. |
| Pets | 700–1,000 V | Start wires close to ground. |
| Keep Out | | |
| Wild Hogs | 5,000 V | Aggressive and persistent. Deter from rooting by starting wires close to ground. |
| Wolves and Coyotes | 4,000–5,000 V | Very thick, insulating fur requires high voltage. Can dig to reach prey so place first wire low to the ground. |
| Bears | 5,000 V | Thick, insulating fur requires high voltage. Bait fences to train avoidance. |
| Deer and Elk | 4,000–5,000 V | Move quickly and often run through fences unseen so make fence highly visible. |
| Small Nuisance Animals | 1,000–2,000 V | Start wires close to ground as small and most species prone to digging. |

Notes:

Fences enclosing both mothers and offspring require an electrified wire at the nose-level height of each.

Please see predator voltage ranges if you want to keep both animals in and predators out. To cover all predators use a minimum voltage of 5,000.

*Voltage levels are impacted by vegetation on the fence line, length of fence and type of wire. To check voltage levels on your fence line, use a Speedrite Fault Finder or Speedrite Digital Voltmeter (see page 11).

INSTALLATION TIPS

Wire tension

Electric fencing provides a psychological barrier rather than a physical one, so there is no need to excessively tension wire. Heavy strainer assemblies are not required either, reducing the overall cost of construction. Electric fence wire should be tensioned to 200 lb. By comparison, conventional fence wire should be tensioned to 340 lb. The tension of each wire can be measured using a tension meter.

RFI (Radio Frequency Interference)

Many farms suffer from RFI. This often results in poor radio reception and an annoying ticking noise on the telephone line. Most Speedrite energizers are fitted with special components and advanced circuitry which significantly reduce the levels of electrical emissions that might otherwise affect adjacent electrical equipment.

Animal training

One method to train animals to respect electric fencing is to use a small, well-fenced holding paddock. Divide the holding paddock using your Speedrite energizer and poliwire. Introduce the untrained animals to the paddock. The animals will quickly learn to avoid the electric fence barrier.

Mixing metals

Avoid using different metals in your electric fence. In damp conditions, when an electric current passes through the differing metals, electrolysis will occur. For example, using stainless steel ground rods and aluminum lead out wire will cause problems. In a short space of time, the aluminum will disintegrate. If possible, keep the wire joints above the soil to improve airflow and reduce electrolysis. Seal the wire joints with thick paint, epoxy or tar to keep moisture away from the joint area. Using identical metals in your electric fence will avoid problems with electrolysis altogether.

ELECTRIC FENCE CHECKLIST

Once you have sketched your fence you are ready to create a list of all the components and tools you require to construct your fence. To help you with this we have included a basic electric fence calculation and components list.

First, you need to measure the perimeter of the area that will be fenced. Once you have done this you will be able to work out the amount of fence wire you require. You do this by multiplying the length of your fence by the number of wires you plan to use.

For example, if your fence perimeter is 500' (150 m) and will have four wires, the length of fence wire you require is 2,000' (610 m). Please also see pages 25-33 for more things to consider when planning a permanent, temporary or solar electric fence.

SELECTING AN ENERGIZER

Power Source

Select an electric fence energizer power source based on your fencing situation. For example a traditional 110 V plug-in energizer is great if you need a very powerful energizer or have a very long electric fence. If you don't have access to an electrical outlet, then a Speedrite Unigizer™, portable battery, or solar powered energizer would be the best choice.

Power rating

You also need to select an energizer that will give you the power (energy) rating required for your electric fence. This is stated in joules. More joules = more power. You can find this information on the comparison table at the front of the brochure (pg 3) or in store on the packaging.

| | |
|--|----------------------|
| Fence Perimeter (ft/m) | <input type="text"/> |
| Fence Energizer (model #) pg (5-10) | <input type="text"/> |
| Ground system (Underground cable (pg 12), joint/ground clamps (pg 21), ground rods (pg 22)) Choosing the Right Ground System (pg 31) | <input type="text"/> |

Posts

Calculations

| | |
|--|----------------------|
| Spacing (ft/m)—distance between posts | <input type="text"/> |
| Number—perimeter feet ÷ spacing | <input type="text"/> |
| Corners/Gates/End Points—No. of posts required | <input type="text"/> |

Type

| | |
|--|----------------------|
| Line (SENTINEL Tread-in (pg 17), Pigtales (pg 17), T-post, Metal Pipes, Rod Posts) | <input type="text"/> |
| Corner* (Wood Post, T-Post, Metal Pipe) *For Semi-permanent/permanent fences only | <input type="text"/> |

Wire

Calculations

| | |
|--|----------------------|
| Total Length(ft/m)—perimeter (ft/ m) x No. of strands | <input type="text"/> |
|--|----------------------|

Type

| | |
|--|----------------------|
| Poliwire, tape, rope, braid (pg 17-18) | <input type="text"/> |
| Steel/aluminum | <input type="text"/> |

Insulators (pg 13-15)

Calculations

| | |
|--|----------------------|
| Line—No. of strands x No. of line posts | <input type="text"/> |
| Corner—No of strands x No. of corner posts | <input type="text"/> |

Type

| | |
|--------------------------|----------------------|
| Line Insulators | <input type="text"/> |
| Corner Insulators | <input type="text"/> |
| Gate Hardware (pg 19-20) | <input type="text"/> |

Reels & Accessories (pg 16)

General Fence Accessories (pg 21-22)

Equine Connectors (pg 23)

Management and Fence Tools (pg 11)



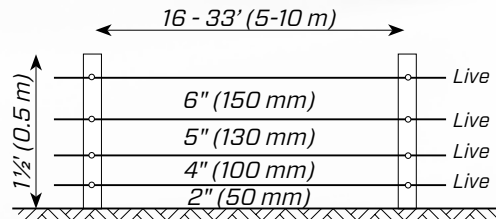
POST & WIRE SPACINGS

Here are some suggested post and wire spacings. Most of the fences below can have an 'All Live' or 'Hot / Ground Return' system of grounding.

See also, Setting up your Grounding System on pages 31-32.

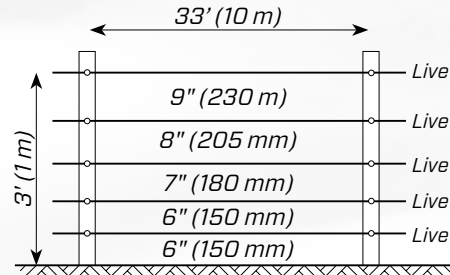
4 WIRE FERAL

16 - 33' (5 - 10 m) spacing, posts only



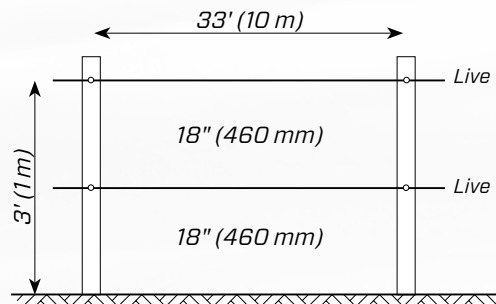
GOATS AND SHEEP

16 - 33' (5 - 10 m) spacing, posts only



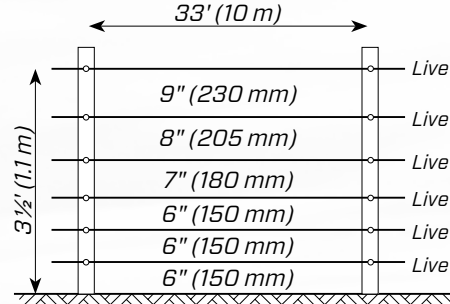
CATTLE AND HORSES

33' (10 m) spacing, posts only



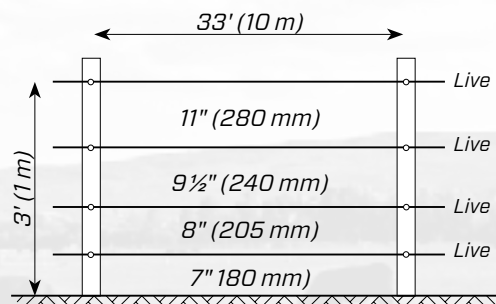
6 WIRE BOUNDARY OR SUBDIVISION

33' (10 m) spacing, posts only



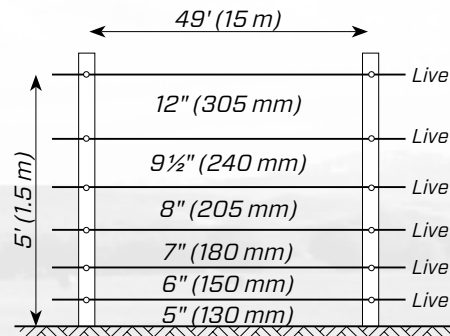
SHEEP

33' (10 m) spacing, posts only



6+ WIRE BOUNDARY

16 - 33' (5 - 10 m) maximum, posts only



SOLAR FENCING GUIDE



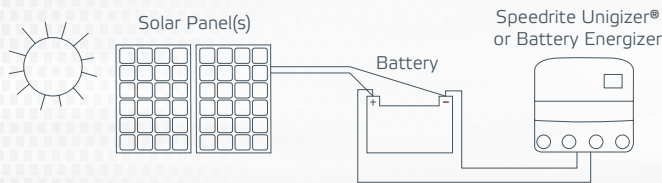
How does it work

A solar panel charges a battery by converting sunlight into electricity which is then used to keep the energizer operating 24 hours per day. Speedrite offers a range of energizers that are compatible with solar energy (pages 5-7) as well as integrated solar systems (pages 7-8).

Where to place your Solar Energizer

Your solar energizer can be placed anywhere along your fence line as long as it has access to unrestricted sunshine. The track of the sun changes as the seasons vary. It is also very important that your solar panel is securely placed in an area where animals or weather conditions can't damage, cover or interfere with the angle that you've established.

NOTE: Face your SOLAR PANEL towards the noontime sun—due south in the northern hemisphere.



What you will need*

Energizer - Select your energizer based on the area you need to fence. It is important that you have adequate power or you risk weak spots in your fence which could allow animals to escape or enter.

Battery - Stores the energy harnessed by the solar panel. Speedrite 1 J, 2 J and 3 J solar systems are designed to run with 12 V (deep cycle, marine type) batteries (sold separately). The size of the 12 V battery must suit the current consumption (mA) of your chosen energizer. See the quick comparison tables on pages 5 and 7 for the current consumption (mA) of your chosen energizer. The 12 V battery must also have sufficient storage capacity to power the energizer during periods of reduced sunlight (for example, in cloudy weather).

Solar Panel - Captures and processes light from the sun. Select your panel(s) based on the power of your energizer and battery system. See the quick comparison tables on pages 5 and 7 for the recommended solar panel for your chosen solar compatible energizer. Note: larger energizers and battery systems require larger solar panels.

Regulator - An important component where external solar panels are connected to battery energizers. It limits the voltage to prevent overcharging of the battery.

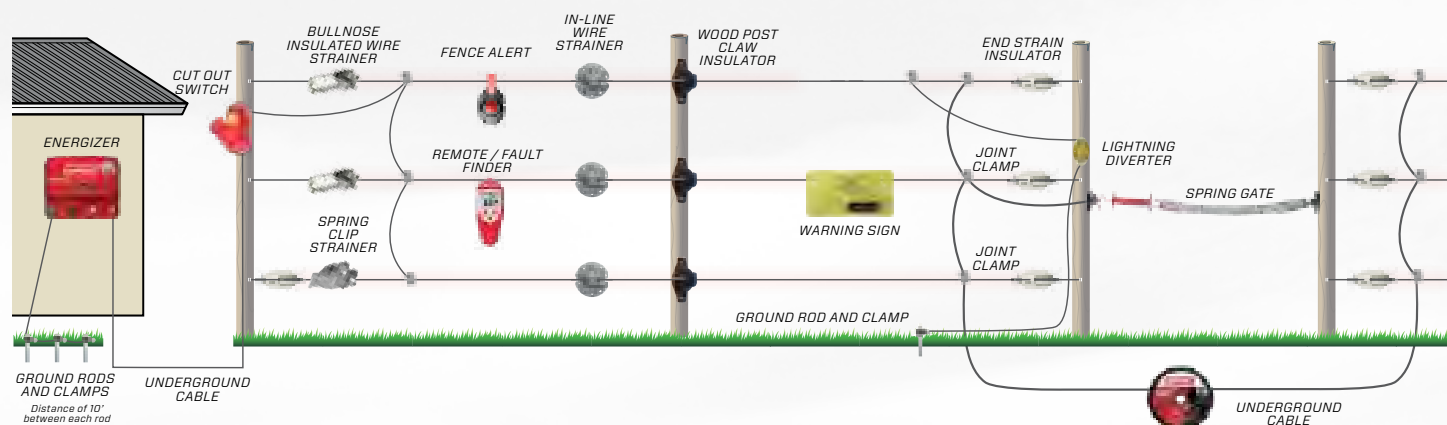
Grounding - As with other types of electric fence systems it is important to ground your solar electric fence (pages 31-32).


* Contact your local Speedrite dealer for assistance in selecting the right solar fencing system for your needs.



PERMANENT ELECTRIC FENCE SYSTEM

These products are recommended to ensure top performance of your permanent electric fence system. DIAGRAM IS ONLY FOR ILLUSTRATION PURPOSES. For complete details on permanent electric fence design, see your local Speedrite dealer, or visit www.speedrite.com.



 Speedrite has a range of equine products for use in permanent electric fencing. Look for the horse logo to identify the Speedrite equine range.

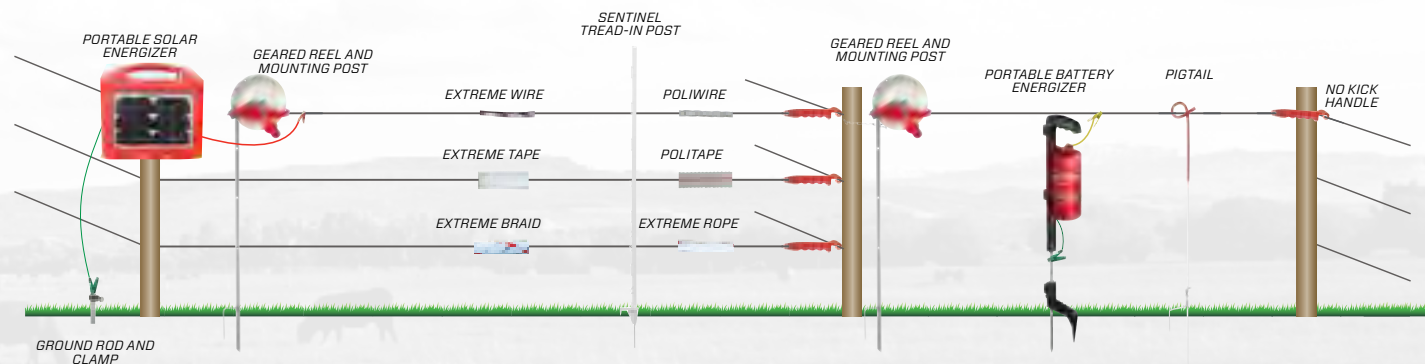
Permanent Electric Fence System Checklist

Do you have:

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Speedrite Energizer or Unigizer®, Solar, 220V/110V or battery powered energizer | <input type="checkbox"/> Cut-out switches | <input type="checkbox"/> Post insulators | <input type="checkbox"/> End strain insulators |
| <input type="checkbox"/> Ground rods and clamps | <input type="checkbox"/> Fence alert(s) | <input type="checkbox"/> Lightning diverter | <input type="checkbox"/> Underground cable |
| | <input type="checkbox"/> Remote/Fault Finder | <input type="checkbox"/> Warning sign(s) | <input type="checkbox"/> Gate hardware |
| | <input type="checkbox"/> Wire strainers | <input type="checkbox"/> Joint clamps | |

TEMPORARY ELECTRIC FENCE SYSTEM

These products are recommended to ensure top performance of your temporary electric fence system. DIAGRAM IS ONLY FOR ILLUSTRATION PURPOSES. For complete details on temporary electric fence design, see your local Speedrite dealer, or visit www.speedrite.com.



 Speedrite has a range of equine products for use in temporary electric fencing. Look for the horse logo to identify the Speedrite equine range.

Temporary Electric Fence System Checklist

Do you have:

- | | | |
|---|---|---|
| <input type="checkbox"/> Solar, Unigizer®, or battery powered energizer | <input type="checkbox"/> Tape, wire or braid | <input type="checkbox"/> No kick handle |
| <input type="checkbox"/> Reel(s) | <input type="checkbox"/> SENTINEL tread-in or pigtail tread-in post | <input type="checkbox"/> Jumper leads |
| | | <input type="checkbox"/> Mounting post(s) |

GROUND SYSTEMS

Your ground system is the most important component of your electric fence system. An effective ground system is necessary to achieve the maximum results of your energizer and your fence.

GROUND SYSTEM BASICS

What is a ground system?

The ground system consists of a number of ground rods that provide an effective (low resistance) path for the current to return to the energizer's ground terminal. Larger energizers with large fence lines require more ground rods.

How does grounding work?

For an electric fence to give an electric shock the current produced by an energizer must complete a full circuit. The current leaves the energizer and moves along the fence wires through the animal, into the soil and back to the energizer via the ground system.

What factors affect your ground system?

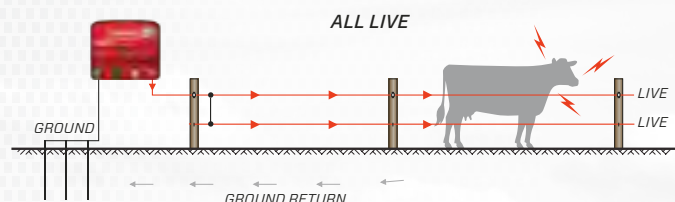
Dry, sandy or non-conductive soil provides an ineffective ground system. If you have this type of soil, it's a good idea to **1)** use additional ground rods or **2)** choose a better location for the ground system (such as damp soil) or **3)** consider an alternative method of grounding such as the Hot / Ground System.

SETTING UP YOUR GROUND SYSTEM

Step 1: Choose the right system for you

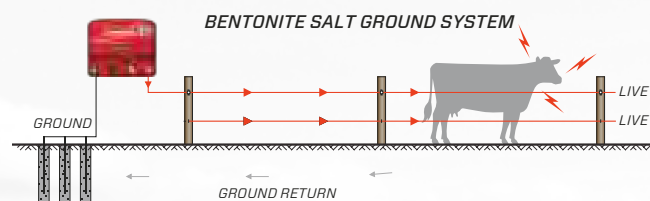
Option 1 - All Live

Recommended where soil is conductive. This system is suitable for most moist soils. Current flows through the animal and the ground back to the ground rods.



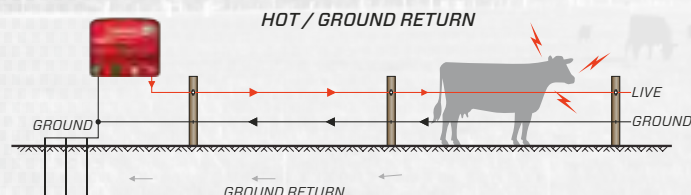
Option 3 - Bentonite Salt Ground

Recommended for extremely dry soil conditions. A mixture of bentonite and salt surrounds each ground rod. The salt attracts moisture and acts as a conductor while the bentonite retains moisture over long periods of time. Stainless steel ground rods are required in order to prevent salt corrosion.



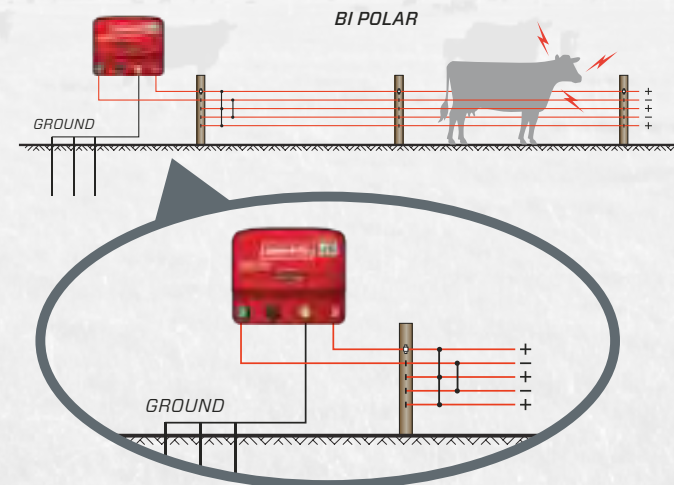
Option 2 - Hot / Ground

Recommended where soil is not conductive. If the soil is dry or sandy it is usually not very conductive. The fence is constructed using both live and ground wires. If the animal touches the live wire the current flows through the animal and the ground back to the ground rods. If the animal touches the live wire and the ground wire the current flows through the ground and fence ground wire to the ground rods.



Option 4 - Bi Polar

Recommended where soil has little or no conductivity (sand, extremely dry conditions) and for fences that require all wires to be live. Enables you to set up an electrical system that performs exceptionally well in dry, low conductive soil.



Step 2: Select the site for your ground system

A suitable place for a ground system is:

- At least 33' (10 m) away from other ground systems, e.g. house electrical system, underground power or phone lines.
- Away from animals or other traffic that could interfere with the installation.
- Easily accessible for maintenance.
- Where there is damp soil all year round, e.g. shaded or swampy areas.

TIPS

1. In some situations it is not possible to locate the ground system close to the energizer. As an alternative try using the existing fence line to connect to a remote ground system.
2. It may be necessary to water the ground system in dry weather to improve soil conductivity.

Step 3: Insert the ground rods

The number of ground rods required depends on the type of energizer you're using to power the fence and the soil conductivity. It is recommended that you consult your user manual or your local dealer for the correct number of ground rods to suit your specific location.

1. Space the required number of 6' (2 m) ground rods at least 10' (3 m) apart. If using a bentonite salt ground system, space the ground rods at least 33' (10 m) apart.
2. Ensure that the ground rods protrude out of the soil by 4" (10 cm) so they can be easily connected.
3. Connect the ground rods in a series using joint clamps and insulated cable* in one continuous length without joins.

*Note you will need to strip small sections of the insulation away from the cable to connect the joint clamp/ground rod.

GROUND SYSTEM CHECKLIST

All wires are joined securely

Connections to ground rods are secure

Ground rods are at least 10' (3 m) apart

Ground rods are at least 6' (2 m) long

There are a sufficient number of ground rods
- refer to your user manual

CHECK
HERE

☐☐☐☐☐

All parts of the ground system are made of the same metal

The ground rods are driven deeply into the soil, leaving 4" (10 cm) exposed

Ground rods are a minimum of 33' (10 m) away from buildings or other electrified ground systems, e.g. house electrical system, underground power or phone lines

CHECK
HERE

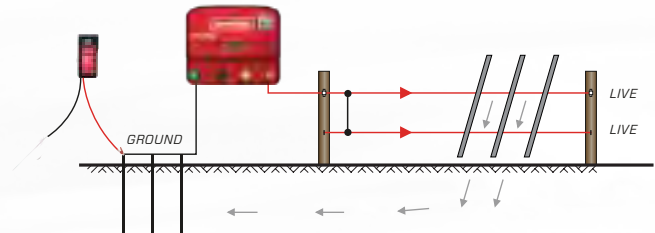
☐☐☐☐

Step 4: Testing your ground system

Test your ground system to ensure it's working properly.

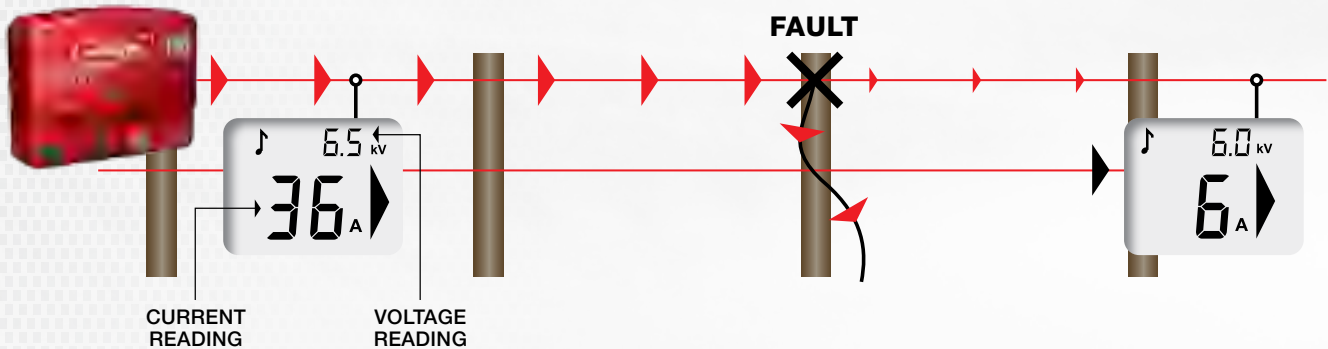
To do this:

1. Turn off the energizer.
2. Short circuit the fence to ground at least 330' (100 m) away from the energizer. This can be done by laying steel rods or pipe against the fence. In dry or sandy soils drive the rods into the soil up to 12" (30 cm).
3. Turn on the energizer.
4. Use a digital voltmeter (see page 11) to measure the fence voltage. It should read less than 2 kV. If not, repeat steps 1-3 using more steel rods or pipe.
5. Attach the voltmeter clip to the last ground rod of the grounding system.
6. Insert the voltmeter probe into the soil at the full length of the leads.
7. The voltmeter reading should be no more than 0.3 kV. If the reading is higher than this, the ground system is inadequate. Therefore you will need to add more ground rods or find a better location for your ground system. It is recommended you review the checklist below.



HOW TO USE A FAULT FINDER

Start near the energizer's lead-out wires with your Speedrite Remote with Fault Finder (page 11) or your Speedrite Fault Finder (page 11). Move down the fence line following the arrow away from the energizer. Take readings at regular intervals and at any junction point.



The previous current reading is shown briefly in the top right corner of the screen so that you can compare readings. If the current reading suddenly falls, you have gone past a fault. Retrace your steps to find the fault. Note that after a few seconds the previous current reading will be replaced with the present voltage reading (kV).

KEY TERMINOLOGY

AC Alternating current, AC power supply
110 - 120 V or 220 - 240 V.

Amp Unit of current. Short for Ampere.

Capacitors Used to store energy in the energizer.

Current Duration and magnitude of current causes the shock given by the electric fence. Increasing the voltage increases current, while increasing resistance decreases current.

DC Direct current, battery power supply (e.g. 12 V battery input).

Fault / Short Energy loss from the fence (i.e. live wire lying on the ground, vegetation growing over the fence, etc.).

Ground System The rod(s) in the ground connected to the ground terminal on the energizer.

Joule Unit of energy. One joule is one watt of power for one second.

Lead Out Wire Section of underground cable or wire that carries the electrical current from the energizer to the fence.

Live The current-carrying wire connected to the energizer fence output terminal.

Ohm Unit of resistance.

Output Energy Effective energy delivered by the energizer. Also known as output joules.

Pulse Brief electrical current given by an energizer, approximately 0.0003 seconds per pulse.

Resistance What causes loss of power and voltage on the fence.

Stored Energy Energy accumulated in the storage capacitor(s) in between output pulses. Also known as stored joules.

Watt Unit of power. One watt is one joule per second.

Volt Unit of electrical pressure. Sometimes it is stated as "kV" or kilovolts which is equal to 1,000 volts.

Voltage Electrical pressure causing current to flow.

HAYES™

Fence Tools

Smooth Grip Chain Strainer

H300 (872002)

The **original** chain and grab wire strainer. Proven in the field for over 100 years.

- Heavy duty industry leader
- Available with anchor hook and extra long chain **H300AL** (800009)

Made in NZ



Crimp Sleeves

The easiest and most effective means of joining wire. Creates a joint that exceeds the breaking strength of wire.



HC2

Suitable for 16 - 12½ gauge (1.6 - 2.5 mm) fence wire
7/8" length (Nearly 3X longer than standard crimp sleeves!)
Jar of 100 (807979)



HCB

Suitable for barbed wire
Jar of 50 (872051)



HCE

For connection to electric fences
Jar of 50 (872052)



HC3

Suitable for 12½ - 10 gauge (2.50 - 3.15 mm) fence wire
Jar of 50 (808209)



HC4

Suitable for 9 - 8 gauge (3.55 - 4.0 mm) fence wire
Jar of 50 (808210)



APEX® Xtra Flow Water Trough Valves



Apex Xtra Flow Water Trough Valves are specifically designed for use in pressure-driven environments (**not gravity flow**). Valves come with a universal diaphragm for high or low pressure situations and are available in multiple sizes ranging from ¾" diameter to 1 ¼" diameter. The compact, armless design has full-flow high volume fill and 1" (25 mm) water level differential between opening and closing, reducing pump motor overload. Because of the full-flow operation, the pump runs unrestricted until your water trough is full.



Flexible mounting options



APEX®
VALVES

INNOVATION QUALITY SERVICE

To learn more on the Hayes Fence Tools and Apex Water Trough Valves offered by Tru-Test Group, please see your local dealer, or call Tru-Test Group at 800-874-8494.





CONTACT:

TRU-TEST INC. 528 Grant Road, Mineral Wells, Texas 76067
Telephone: 800 874 8494 Fax: 940 327 8048

www.speedrite.com



For more information on Tru-Test Group
and our brands, visit www.tru-test.com

Although the information presented in this product catalog is believed to be accurate and reliable, no responsibility for inaccuracies can be assumed by Tru-Test Limited. Any performance data is typical only and variations due to component manufacturing tolerances are normal. Not all products are available in all countries. Contact your local customer service team for your local product range. Tru-Test Limited reserves the right at any time to change performance characteristics or specifications without notice. © 2003 - 2012 Tru-Test Limited.

814221 issue 3 08/12