ZAREBA®

SMART SYSTEMS
FOR ANIMAL CONTROL

Do-it-Yourself Electric Fence System Planning Guide

Zareba Offers What No One Else Can

- *Fully integrated product line — compatible components designed and manufactured by the same U.S. company*
- *New, more versatile fence controllers with options for AC, battery, and solar operated units covering distances of less than a mile to over 200 miles*
- *Exacting manufacturing standards backed by extensive product testing*
- *The industry's leading warranty*
- *Over 60 years of experience in electric fence design and engineering*

Look for these fine brands of fence controllers from Zareba Systems in your local farm supply or home improvement store.

ZAREBA

International

RED SNAP'R

HOL-DEM

BLITZER

BullDozer

Made in U.S.A.

KEEPING IT ALL UNDER CONTROL

Zareba makes complete electric fence systems to control a wide variety of animals. This fence planning guide can help you determine which fence system is best for you and will help you select the components to complete your fence. Keep in mind that choosing and installing quality components will pay dividends later with fewer maintenance problems and a greater fence life-expectancy.

ZAREBA SYSTEMS MAKE SENSE

An electric fence system from Zareba can be matched to any animal control situation, offering both budget and design flexibility.

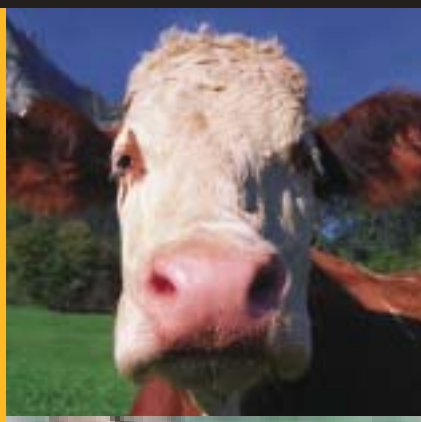
Safety
Electric fencing provides a safe alternative to barbed and woven wire fences. A short, safe pulse of electricity creates a psychological barrier that trains animals to avoid the fence.

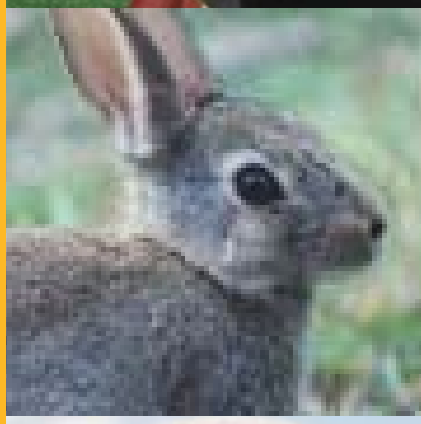
Flexibility
The various systems from Zareba give you flexibility to design the enclosure you need, whether a permanent, semi-permanent or portable application. It is also easy to convert an existing non-electric fence to electric.

Ease of installation
Electric fence systems install quickly with minimal tools, saving on labor whether you hire out the job or do it yourself.

Lower Cost
The savings can be significant when compared to other fencing options like barbed wire, woven wire, wood rail or vinyl fencing.

Long Life
A Zareba high tensile system is the best choice for longevity, delivering effective animal control for 25 years and longer.





BEFORE YOU START

Check Local Codes
Before you start your fence installation, check local zoning laws for guidelines within your area. Also check with local utilities before digging to identify any buried cables or natural gas lines.

Designing Your Fence
The optimal fence system will be unique to your own special needs. This planning guide takes you through a step-by-step process* for selecting the components you'll need for your fence, including the electric fence controller, conductive wire, post type, and insulators.

Our components work together in various combinations to create four basic fence types suited to any animal control need.

BASIC FENCE TYPES**

	Portable/Temporary	Semi-Permanent/ Permanent	Permanent High Tensile	Horse-Sense Electric Fence System®
Expected fence life	Short term, frequent moves	1-20 years	20-40 years	5-15 years
Ease of installation	Simple, fast	Easy to moderate	Moderate, special tools required	Moderate
Animals controlled	Cows, horses, pets, lawn and garden pests	Cows, horses, hogs, sheep, goats, exotics, deer, predators	Cows, hogs, sheep, goats, exotics, deer, predators	Horses
Best suited for	Temporary fencing, managed intensive grazing	Pastures, cross fences	Permanent perimeter installations	High visibility, horse pasture
Post type	Step-in posts, steel and rod posts, fiberglass posts	T-posts, rod posts, U-posts	Wood posts, T-posts, U-posts	T-posts, U-posts wood posts
Wire type	Poly wire, poly tape, poly rope	Poly wire, poly tape, poly rope, steel wire	12½ gauge high tensile wire	Poly tape, poly wire, poly rope
Distance	Short	Unlimited	Unlimited	Unlimited
Features	Lightweight, reusable, easy to move	Workable with any configuration of posts and conductive wire	Longest life fence system available, minimal maintenance	Use with vinyl post sleeves for attractive, white-rail look, affordable

** If you need additional assistance – please see our interactive fence planning guide on our website, www.zarebasystems.com*

*** NOTE: Portable, temporary and semi-permanent fencing should not be the sole means of animal containment. Use portable and temporary electric fencing within permanent fencing to lower the risk of injury to animals and people should an animal escape the electric fence.*

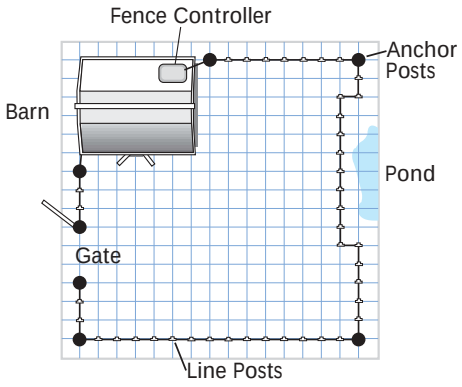
CONTENTS

Creating your fence

1 Plan Your Layout

It helps to plan your fence layout in advance and choose the various components you'll need to complete the installation. Using pencil and a sheet of graph paper, sketch out the area you wish to enclose, noting distances. Then draw in the approximate locations of buildings or barns that will be adjacent to or enclosed by the fence. Also include in your plan:

- Location of water supplies and feeding stations
- Trees or other obstacles
- Low or wet spots
- Entrance/exit points where gates are needed — denote the length of gates
- Fence termination points (e.g., at a building)
- Location of fence controller and electrical source (if applicable)
- Cross fences within the pasture area (temporary or permanent)



2 Choose Your System's Components and Complete the Checklist

When your sketch is complete you're ready to select components for your system. Refer to this guide for more detailed product information and tables that will help you calculate the number of each component you'll need.

Determine your perimeter length*:

¼ acre = 417 feet	4 acres = 1670 feet
½ acre = 590 feet	5 acres = 1867 feet
¾ acre = 722 feet	10 acres = 2640 feet
1 acre = 835 feet	20 acres = 3743 feet
2 acres = 1181 feet	40 acres = 5280 feet
3 acres = 1446 feet	50 acres = 5903 feet

**These distances are based on square-shaped perimeters. Shape of area will vary the perimeter of the fence.*

BASIC FENCE SYSTEM CHECKLIST

(Equine and High Tensile see pages 20 and 22)

Perimeter distance to enclose _____ *(feet)*

Fence Controller (page 4-8)
Fence controller AC, DC, Solar _____ *(model #)*

Grounding system (page 9) _____
(most systems require (3) 6' or 8' ground rods, 3 clamps, and 20,000 volt hookup wire)

Posts (page 10)
Type of Line Posts _____
(step-in, T-post, U-post, wood post, rod post) *(post type)*

Post spacing (feet between posts) _____

Number of line posts (perimeter feet ÷ post spacing) _____

Type of Corner Posts (wood post, T-post, U-post) _____ *(post type)*

Number of posts for corners/gates/termination points _____

Fence Wire (page 11-13)
Type of wire (poly wire, poly tape, poly rope, steel wire) _____

Number of strands _____

Total feet needed (perimeter ft. x number of strands) _____

Insulators (page 14-18)
Type of insulator: line posts _____ *(model #)*

Line insulators needed _____
(number of strands x number of line posts)

Type of insulator: corner posts _____ *(model #)*

Corner insulators needed _____
(number of strands x number of corner posts)

Gate Handles and Kits (page 19) _____
(number of gates x number of strands = number of kits needed)

Horse-Sense Electric Fence System®
For equine system components, see page 20

High Tensile Fence System
For high tensile components, see page 22

Accessories (page 26)
Kits – equine, pet, lawn and garden; Fence voltage testers, fence alarm; Lightning and power surge protection; Repair parts

Fence Controller Terms

Joules *– Measure of electrical energy used to rate low impedance fence controllers. The effective power the controller delivers to the fence, independent of other factors that can drain voltage. The higher the joules, the more intense shock the animal will feel. (1 joule = 1 watt of power for 1 second)*

Low impedance *– Low impedance controllers increase the joules (energy or shock) on the fence line if weeds or other vegetation touch the line.*

Solid state *– delivers medium amperage shock in medium duration pulses.*

Amperage *– the measurement of electric current; what you feel when you get shocked. The higher the amperage the more intense shock the animal will feel.*

Volts *– measurement of electrical pressure. Voltage "pushes" amperage down the fence wire.*

Distance ratings *– use to compare fence controllers. Ratings are based on a single strand of 17 gauge steel wire strung 36" above the ground under ideal, weed-free laboratory conditions.*

SPECIES CONSIDERATIONS

Animal	Minimum recommended voltage on fence line*	Characteristics/ Recommendations
Horses	2000–3000 volts	High visibility for safety, white 1½" poly tape, low impedance fence controller, 3-5 strands
Cows	2000–3000 volts	If docile with plenty of pasture, 1-3 strands adequate
Bulls	3000–4000 volts	Extra shock needed to control a determined bull, 4 strands recommended
Sheep/ Goats	4000–5000 volts	Difficult to confine (goats jump, thick coats require higher voltage), 4-6 strands
Nuisance pests	1000–2000 volts	Smaller animals require closer wire spacing
Pigs	2000 volts	To deter from rooting, use 3-4 wires starting 6" from ground; solid state fence controller
Wolves/ Predators	4000–5000 volts	Wires spaced 6-8" apart, high output shock value
Bison/deer	4000–5000 volts	6'-8' tall to keep out deer, high visibility, low impedance fence controller
Pets	700–1000 volts	3-4 wires, starting 6" from ground; solid state fence controller

**Zareba Systems voltage testers (page 26-27) can help you determine if you have adequate voltage on your fence line.*

KEY COMPONENTS AT A GLANCE

Fence Controller

Selecting the right fence controller with adequate power for your enclosure is critical to keeping your animals safe. Consider the power source AC (110 volt), DC (battery), or solar operated, type of animal controlled, length of fence line, amount of vegetation growing on the fence line, and the output of the fence controller.

If you are unsure of which fence controller to select we recommend an AC operated model (if you have access to AC power) that is the most powerful unit you can afford. This provides options for future expansion and gives you flexibility.

Posts

Posts provide the backbone of your fence system. Line posts support the fence wire and keep it evenly spaced. Corner posts (generally wood) must be set deeper than line posts to withstand the strain of supporting the fence line. Temporary or portable posts are generally smaller and lighter.

Fence Wire

The electric fence wire conducts electricity around the enclosure. Wire types include smooth steel wire, high tensile wire, poly wire (stainless steel wire strands woven with polyethylene) poly tape, and poly rope. Your selection will depend on the type of fence, the type of animal you are containing and how long the fence will stay in place.

Insulators

Insulators prevent electrical shorts between the electrified wire and the fence posts. Good quality insulators are critical to a properly functioning fence. Insulators are most commonly plastic or ceramic.

Horse-Sense Electric Fence System®

For the equine enthusiast, we've developed a unique system that combines the best of electric fencing with the classic "white rail" look. Visit pages 20-21 for all you need to complete your horse enclosure.

High Tensile Fence System

A high tensile fence system requires many unique components. While not right for every type of animal or enclosure, a high tensile fence is affordable, attractive, easy to maintain and long lasting — from 20-40 years.

Accessories

Fence system tools like voltage testers help keep your fence in good working condition, while lightning diverters can help protect your fencer. In addition, you'll find warning flags and other fence system accessories.

AC operated Fence Controllers

Zareba Systems AC operated fence controllers are a great option where you have a reliable source of 110- or 220- volt electrical power. We offer a range of controllers for distances from less than one mile to over 200 miles. All Zareba System AC controllers feature:

- *Rugged, weather resistant cabinets*
- *UL and CSA listed for most models*
- *Fence controller working lamp indicator*
- *Easy-access terminals and mounting brackets that allow for quick connections and installation*
- *A one-year warranty that includes damage caused by lightning*
- *220- volt models also available*

LOW IMPEDANCE FENCE CONTROLLERS

These models utilize special circuitry and transformers to maintain high energy levels on the fence. They are effective in moderate to heavy weed conditions and are ideal for longer, multi-strand polywire, tape, rope or high tensile fence systems. Use for all animals including predators.

A100LI, A200LI

LI15, LI30, LI50, LI100

A10LI, A25LI, A50LI

SOLID STATE FENCE CONTROLLERS

These affordable controllers are particularly effective controlling short-haired livestock, small animals and pets where light to moderate weed conditions exist.

A20M, A10M, A15M

A20CP
A20ML (no circuit pak)

66B, 88B

A20, A15, A5, ACT
ADD2, ADD4 (1 terminal only)

RS3

33B

ACC2

Model†	Mileage Rating	Maximum Output Joules	Weed Conditions	Animals Controlled*	Other Info
AC - LOW IMPEDANCE FENCE CONTROLLERS					
Zareba A10LI 8905, 405, C405, V405	10 miles	.5	Heavy	All animals including predators	
Red Snap'r LI15	15 miles	1.25	Heavy	All animals including predators	
Zareba A25LI 8901, 301, 401, C401, V401	25 miles	1	Heavy	All animals including predators	
Red Snap'r LI30	30 miles	1.8	Heavy	All animals including predators	
Zareba A50LI T502, 302, 8902, 402, C402, V402	50 miles	2	Heavy	All animals including predators	
Red Snap'r LI50	50 miles	3.75	Heavy	All animals including predators	
Zareba A100LI T50, 5000, 8900, 4400, C4400, V4400	100 miles	6	Heavy, wet	All animals including predators	Includes Storm Guard module
Red Snap'r LI100	100 miles	6.75	Heavy, wet	All animals including predators	
Zareba A200LI Twasp, A200LIV	200 miles	15	Heavy, wet	All animals including predators	Includes Storm Guard module

Model†	Mileage Rating	Weed Conditions	Animals Controlled*	Other Info
AC - SOLID STATE FENCE CONTROLLERS				
Zareba ADD2 415	2 acres	None	Small animals and pets	Direct discharge (no ground rod required)
Zareba ADD4	4 acres	None	Small animals and pets	Direct discharge (no ground rod required)
Zareba ACC2	2 mile	None	Short haired animals, small animals and pets	Continuous current
Red Snap'r 33B	2 mile	None	Short haired animals, small animals and pets	Continuous current
Red Snap'r RS3	3 miles	None	Short haired animals, small animals and pets	
Zareba A5 T30, 601, 8574, WD56	5 miles	Moderate, dry	Most livestock, short haired animals, small animals and pets	
Zareba A10M T57	10 miles	Moderate, dry	Most livestock, short haired animals, small animals and pets	Small metal cabinet
Zareba A15 4465, C4465, V4465, 77, 8565	15 miles	Moderate, dry	All animals except predators	
Zareba A15M	15 miles	Moderate, dry	All animals except predators	Small metal cabinet
Red Snap'r 66B	15 miles	Moderate, dry	All animals except predators	
Zareba A20 4444, 8555	20 miles	Moderate, dry	All animals except predators	
Zareba A20M	20 miles	Moderate, dry	All animals except predators	Small metal cabinet
Zareba A20ML T980, 98, 4309	20 miles	Moderate, dry	All animals except predators	Large metal cabinet
Zareba A20CP S100	20 miles	Moderate, dry	All animals except predators	Includes external Circuit Pak for easy repair
Red Snap'r 88B	20 miles	Moderate, dry	All animals except predators	
Zareba 8200	Cow Trainer	NA	For use in dairy barns only	High/low switch

**Animals controlled:*
predator exclusion – wolves, bear, wild boar, deer
most livestock – cows and exotics, not bulls, sheep, goats
short haired animals – horses, pigs
small animals – rabbits, skunks, woodchucks, raccoons

†Note: Alternate model numbers shown in smaller type may be offered in your area depending on fence controller brand.

DC operated Fence Controllers

Battery-operated fence controllers are ideal for remote locations or areas without access to AC power. All Zareba Systems DC controllers feature:

- *Rugged, weather resistant cabinets*
- *UL and CSA listed for most models*
- *Fence controller working lamp indicator*
- *Easy-access terminals and mounting brackets that allow for quick connections and installation*
- *A one-year warranty that includes damage caused by lightning*
- *We recommend 6- or 12-volt rechargeable deep cycle batteries (not included with fence controller). Batteries must be checked and charged on a regular basis to maintain secure fence operation.*

LOW IMPEDANCE FENCE CONTROLLERS

These models utilize special circuitry and transformers to maintain high energy levels on the fence. They are effective in moderate to heavy weed conditions and are ideal for longer, multi-strand poly wire, tape, rope or high tensile fence systems. Use for all animals, including predators

B10LI

LIB15, LIB30

B25LI, B50LI

SOLID STATE FENCE CONTROLLERS

These affordable controllers are particularly effective controlling short-haired livestock, small animals and pets where light to moderate weed conditions exist.

B10M

44B

B5, B10

Model†	Mileage Rating	Maximum Output Joules	Weed Conditions	Animals Controlled*	Battery Type**
DC — LOW IMPEDANCE FENCE CONTROLLERS					
Zareba B10LI	10 miles	.25	Heavy	All animals including predators	(4) D-cell, or 6 volt or 12 volt battery
Red Snap'r LIB15	15 miles	.75	Heavy	All animals including predators	12 volt energy saver switch
Zareba B25LI 321B, 421B, 8921B	25 miles	1	Heavy	All animals including predators	12 volt
Red Snap'r LIB30	30 miles	1	Heavy	All animals including predators	12 volt
Zareba B50LI	50 miles	2	Heavy, wet	All animals including predators	12 volt

Model†	Mileage Rating	Weed Conditions	Animals Controlled*	Battery Type**
DC — SOLID STATE FENCE CONTROLLERS				
Zareba B5 410	5 miles	Moderate, dry	Short haired animals, small animals, pets	6 volt
Red Snap'r 44B	10 miles	Moderate, dry	All animals except predators	6 or 12 volt
Zareba B10 4612, 8612	10 miles	Moderate, dry	All animals except predators	6 or 12 volt
Zareba B10M S12	10 miles	Moderate, dry	All animals except predators	6 or 12 volt

**Animals controlled:*
predator exclusion – wolves, bear, wild boar, deer
most livestock – cows and exotics, not de bulls, sheep, goats
short haired animals – horses, pigs
small animals – rabbits, skunks, woodchucks, raccoons

***Note: Batteries for fence controllers are not included. For optimum performance we recommend deep-cycle 6 or 12-volt batteries.*

†Note: Alternate model numbers shown in smaller type may be offered in your area depending on fence controller brand.

Solar Fence Controllers

Our solar fence controllers include a 6-volt gel cell battery matched to the fencer's circuitry and solar panel. Once fully charged, the battery can maintain a charge for up to 2 weeks, even in cloudy or rainy weather, making them ideal for remote locations.

All Zareba Systems solar fence controllers use low impedance technology to maintain maximum energy levels. They can compensate for energy loss caused by vegetation or fence load, enabling them to power long fences with moderate weeds.

Convenient carry handle and versatile mounting bracket allow for easy movement between locations and fast installation on wood posts, t-posts, u-posts or on the sides of buildings.

SP3, LIS3

SP10, LIS10

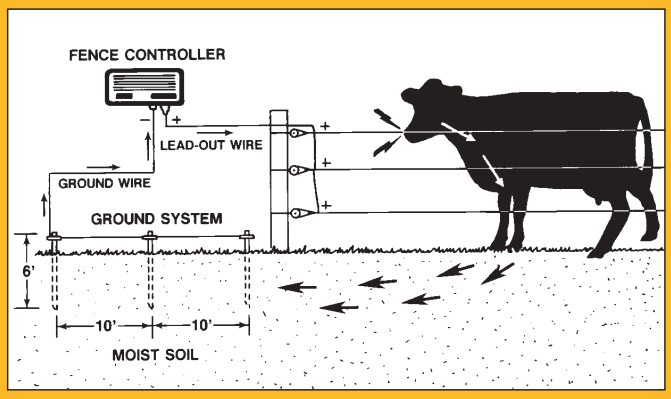
Back view t-post mount for SP10, LIS10, SP3, LIS3

SP30

Model†	Mileage Rating	Output Joules	Weed Conditions	Animals Controlled	Battery Type (included)
DC — SOLAR LOW IMPEDANCE FENCE CONTROLLERS					
Zareba SP3 (black) LIS3 (red), T504	3 miles	.05	Light	All animals except predators	6 volt, 4.5 amp battery
Zareba SP10 (black) LIS10 (red), TSP83	10 miles	.15	Moderate, dry	All animals except predators	6 volt, 12 amp battery
Zareba SP30 SP30V, T512	30 miles	.5	Moderate, dry	All animals including predators	12 volt battery (2 6-volts in line) with solar setting switch for optimum performance and battery life

†*Note: Alternate model numbers shown in smaller type may be offered in your area depending on fence controller brand.*

Part Number	Use with	Battery Type
SOLAR BATTERIES AND CHARGERS		
Solar battery (SB1)	SP10, LIS10	6-volt, 10-amp hour gel-cell battery
Solar battery (SB3)	SP3, LIS3	6-volt, 4.5-amp hour gel-cell battery
Solar battery (07068.92)	SP30 (requires (2) 07068.92)	6-volt, 14-amp hour gel-cell battery
Solar battery charger (SBC1)	6-volt gel-cell batteries	Recharges battery in 24 hours

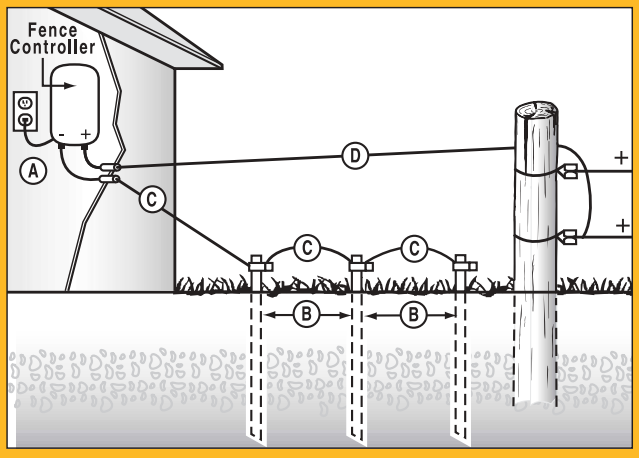


Why is grounding so important?

If the ground system is insufficient, electricity cannot find a path to the fencer and little or no shock is given. An animal provides this path when it touches the fence wire and the earth simultaneously. The electricity then passes through the animal into the soil and back to the ground rods, which are connected to the ground terminal of the fence controller. Only then is the circuit completed and the animal receives an electrical shock.

Sandy, dry soils may require a ground-wire return system. Refer to the installation manual included with your fence controller or visit www.zarebasystems.com for more information.

Detailed installation and grounding instructions are included with every Zareba Systems electric fence controller.



How to Ground Your System

A Install the controller in a building or weatherproof area. Solar fence controllers should be mounted outside, facing the equator for maximum sun exposure.

B Drive three 6' or 8' ground rods (copper or galvanized metal) into permanently moist soil about 10' apart and at least 50' from other electrical grounds. If the soil is dry or subject to freezing part of the year, additional ground rods spaced 10' apart may be needed.

C Connect the "ground" terminal on the fence controller to the ground rods with insulated wire and brass ground rod clamps.

D Connect the "fence" terminal on the controller to the fence wire using line clamps and Zareba 20,000-volt insulated hookup wire.

Your fence controller needs to be properly installed and grounded in order to perform effectively. Make sure you have the following items on hand to install and complete a proper ground system:

8' x ½" copper ground rod: GR8

6' x ½" galvanized ground rod: 07104.96

Brass ground rod clamp: 07105.96

Galvanized line clamps: 07110.96

Insulated wire:
UGC50 12½ ga. 50'
1404.92 14 ga. 50'
7090.92 14 ga. 125'

Selecting Components—Fence Posts

POST SPACING GUIDELINES

Fencing Parameters	Post Spacing
High-tensile system, level terrain	30-90'
Difficult animals, rolling terrain	15-20'
Poly tape and poly wire	12'

Left to right: SIP48, WSIP48, EFP48, FRP48, FTP48

A fence system normally requires two different types of posts: corner posts, used where greater tension occurs in the fence line, such as corners and gates; and line posts, used to support the fence wire between corners. Post selection depends on the type of fence (see chart of Basic Fence Systems on page 1) and the expected fence life.

Electric fencing typically uses fewer posts than conventional barbed or woven-wire fencing, making it less expensive and easier to install. The type of post you select also determines the type of insulator you choose (see page 14).

Post spacing will vary, depending on the animal being controlled, the topography (flat or rolling), and the type of fence. Refer to the Post Selection Guide to determine what post works best in your situation.

POST SELECTION GUIDE

Post Type	Plastic Step-In Posts	Wood Posts	Steel T-Posts, U-Posts, Y-Posts	Fiberglass t-post/ Rod posts	Metal Rod post
Possible Uses					
Corner Posts		X			
Line Posts	X	X	X	X	X
Spacers	X			X	
Used for					
Portable Fencing	X			X	X
Semi-Permanent/ Permanent High Tensile		X	X		
Equine	X	X	X	X	X

Step-In Posts for Portability

Zareba's step-in poly fence post is ideal for temporary or portable fencing, including rotational grazing and temporary corrals. It accommodates all steel and poly wire, poly tape up to 1½" wide, and poly rope up to ¼" diameter. It has built-in insulator clips with an 8" galvanized steel spike for any ground conditions.

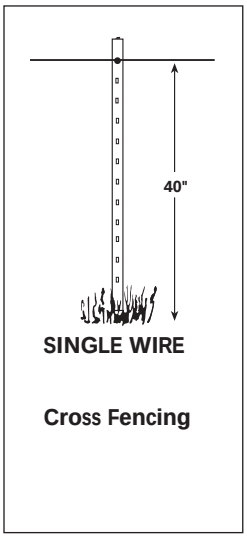
ZAREBA SYSTEMS POSTS

Description	Model Number/Dimensions
White polyethylenene step-in post with four insulator clips and 8" galvanized steel spike	WSIP24 – 24", WSIP48 – 48"
Black polyethylenene step-in post with four insulator clips and 8" galvanized steel spike	SIP24 – 24", SIP48 – 48"
Steel rebar post	AEFP54 – ⅜" x 54", EFP48 – 5/16" x 48"
Fiberglass rod post, ⅜" diameter	FRP60 – 60", FRP54 – 54", FRP48 – 48"
Rod post clip for fiberglass post	RPC20
Fiberglass t-post	FTP54 – 54", FTP48 – 48"
T-post clip for fiberglass post	TPC20

FENCE WIRE

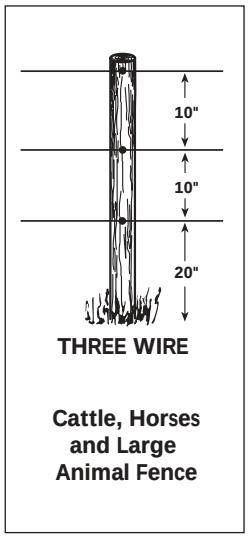
Electric fence wire conducts the electric charge from the fence controller around the length of the fence. Review the wire options appropriate to the type of fence you are installing. (See Basic Fence Systems Chart, page 1).

The height and spacing of the wires will vary with the animal you are containing. Some typical wire spacing options are shown below. Position one electrified wire at animal's shoulder height; this will cause it to hit the fence with its nose, making it back up. (See species considerations, page 3).



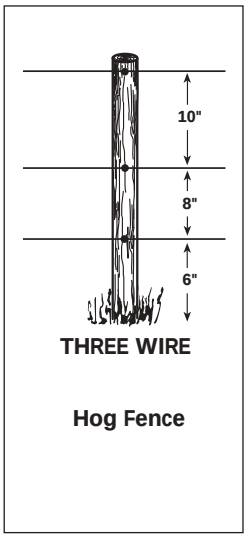
SINGLE WIRE

Cross Fencing



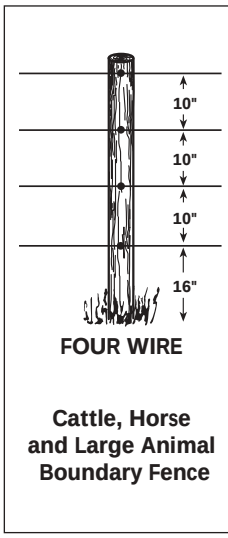
THREE WIRE

Cattle, Horses and Large Animal Fence



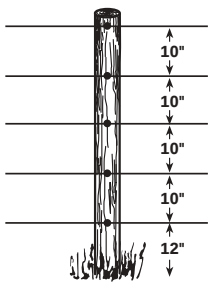
THREE WIRE

Hog Fence



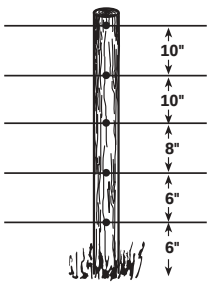
FOUR WIRE

Cattle, Horse and Large Animal Boundary Fence



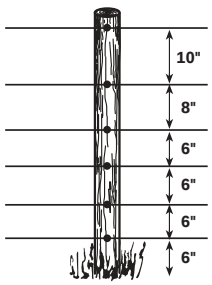
FIVE WIRE

Feedlot, Horse, Boundary Fence



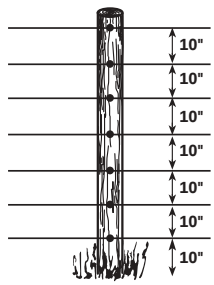
FIVE WIRE

Predators, Cattle, Deer, Sheep or Boundary Fence



SIX WIRE

Predators, Cattle, Deer, Sheep or Boundary Fence



SEVEN WIRE

Deer Fence

Barbed Wire Not Recommended

Remember that an electric fence is a psychological barrier, not a physical one, so it normally requires fewer posts and strands of wire than a conventional fence. Barbed wire and woven wire fences are more likely to be damaged by animals, and animals are more likely to be damaged by them. Because animals seldom come into contact with an electric fence more than once, it can also last longer than a conventional fence.

Poly Wire

Zareba Systems offers a wide selection of fence wire made from high-density polyethylene strands woven with stainless steel wire, including poly wire, poly tape, and poly rope. These combination wires provide the strength and conductivity of galvanized steel and the lightweight, durable, and easy-handling qualities of our UV protected polyethylene. NOTE: Only use UL listed fence controllers with these products.

ELECTRIC FENCE POLY WIRE

PWT6 – poly wire tightener

Poly wire is a good fencing choice since it tends to be more visible than traditional wire. It weighs only 3 pounds per 1000 feet, making it very easy to handle, install, and rewind. It can be used over and over in temporary pastures and is easily tightened and repaired. Use a polywire tightener (PWT6) to maintain wire tension as needed.

Poly wire is ideal for temporary grazing, strip or rotational grazing, and general pasture and pet control.

For best results, energize poly wire fence lines with a low impedance fence controller.

Model	Conductive Wires	Length	Color
RSW500	3	500'	Yellow
RSW1000	3	1000'	Yellow
RSW660HD – Heavy Duty	6	660'	Yellow and Black
RSW1320HD – Heavy Duty	6	1320'	Yellow and Black
WRSW660HD – Heavy duty	6	660'	White
WRSW1320HD – Heavy duty	6	1320'	White

WARNING: Poly wire, poly tape and poly rope are designed for temporary, rotational grazing or in conjunction with permanent perimeter fencing. It is not intended as the sole means of animal restraint.

ELECTRIC FENCE POLY TAPE

Zareba Systems electric fence poly tape provides even greater visibility than poly wire. Reinforced, rip-stop edges also help protect the tape from wear and tear. The open weave design of the 1½" poly tape allows wind to pass through, reducing wear and increasing the longevity of the fence line.

Splicing poly tape is easy using specially designed splicer buckles for ½" wide (SBS4) or 1½" wide (SBL4) tape.

For best results, energize poly tape fence lines with a low impedance fence controller.

Large splicer buckle: SBL4

Small splicer buckle: SBS4

Model	Conductive Wires	Length	Width	Color
PTW1 – Heavy Duty	7	656'	½"	Yellow and Black
PTW2 – Heavy Duty	7	1312'	½"	Yellow and Black
PTW3	4	656'	½"	Yellow
PTW4	4	1312'	½"	Yellow
PTW5 – Heavy Duty	7	656'	½"	White
PTW6 – Heavy Duty	12	656'	1½"	White
PTW9 – Heavy Duty	12	330'	1½"	White

ELECTRIC FENCE POLY ROPE

Poly rope is another excellent high visibility choice for your fence line. It is stronger than other poly wires, with stainless steel strands woven through the rope. The steel strands ensure maximum electrical energy is carried through the fence line at all times. Use splicer (PRS2) to maintain a good connection.

For best results, energize poly rope fence lines with a low impedance fence controller.

Poly rope splicer: PRS2

Model	Conductive Wires	Length	Diameter	Color
RSR660	9	660'	¼"	white

RSR660

Selecting Components—Insulators

White poly rope (RSR660) with Snap'r Cap'r insulator (WSC10N) on wood post

Steel wire with insulator (YRP25N) on rod post (FRP48)

Heavy duty poly wire (RSW660HD) with 5" poly tape/poly wire extender insulator (YPT25TPX) on t-post

Insulators allow you to fasten electrified wire to posts without losing energy through the post. There are many styles to choose from, because the insulator must match both the type of wire and the type of post being used. In addition, low-impedance fence controllers require insulators with greater arcing protection because of their high-energy output.

Insulators are made from materials that do not conduct electricity, most commonly plastic or ceramic. Using a good quality insulator is important to the performance and efficiency of your electric fence system.

RED SNAP'R® – INSULATORS THAT DON'T BREAK – GUARANTEED!

Red Snap'r Insulators:

- Are made from only the highest grade, high density polyethylene, resulting in a rugged durable construction
- Provide excellent insulating characteristics
- UV protected to resist weathering, even under the harshest conditions
- Are designed for easy attachment to any type of fence post and wire

How to Select Insulators

Start with the post type. Then select the right insulator based on the type of wire and fence controller used.

WOOD POST INSULATORS - PLASTIC

	Item Number and Description	Fence Wire	Use with High Tensile?	Colors	Nails Included	No Nails	Use with Low Impedance Controllers?
	PL25WP Wood post pin lock insulator	All fence wire, not poly tape or poly rope	Yes	Yellow Black White	YPL25WP PL25WP WPL25WP	YPL25 PL25 WPL25	Yes
	WP25N Wood post insulator	All fence wire and poly rope, not poly tape	No	Yellow Black White	YWP25N WP25N WWP25N	YRS25N RS25N WRS25N	Yes
	WPX25N 5" wood post extender insulator	All fence wire and poly rope, not poly tape	No	Yellow Black White	YWPX25N WPX25N WWPX25N	NA NA NA	Yes
	SF25WP Economy wood post insulator	Thin gauge steel wire	No	Yellow	SF25WP	SF25	No
	WP25 Economy wood post square insulator	Thin gauge steel wire	No	Black	WP25	RS25	No
	WP25NB Economy wood post knob insulator	Thin gauge steel wire	No	Black	WP25NB	RS25NB	No
	07117.96 1" wood post screw-in insulator	All fence wire and rope, not poly tape	Yes	Black	NA	NA	Yes
	PT25WP Poly tape insulator	Poly tape up to 2" wide and poly wire/rope up to ½" diameter	No	Yellow Black White	YPT25WP PT25WP WPT25WP	NA NA NA	Yes
	PT25WPX 5" poly tape extender insulator	Poly tape up to 1½" wide and poly wire/rope up to ½" diameter	No	Yellow Black White	YPT25WPX PT25WPX WPT25WPX	NA NA NA	Yes
	SC10N Snap'r Cap'r insulator for top of wood posts	Poly tape up to 1½" wide and poly wire/ rope up to ½" diameter	No	Yellow Black White	NA NA NA	YSC10N SC10N WSC10N	Yes

WOOD POST INSULATORS - CERAMIC

	Item Number and Description	Fence Wire	Use with High Tensile?	Nails Included	No Nails	Use with Low Impedance Controllers?
	WP5 Single groove wood post insulator with washer	All fence wire, not poly rope or poly tape	No	WP5E	WP5	Yes
	WP22 Multigroove ceramic wood post insulator with washer	All fence wire, not poly rope or poly tape	No	WP22E	WP22	Yes

WOOD POST/CERAMIC INSULATOR ACCESSORIES

Item Number	Description
Wing Nut and J-bolt (WJ25)	Use to attach ceramic line insulators or plastic square and knob insulators to rod posts
Double-Head Nails with washers (07092.96)	Use to attach insulators to wood posts
Kwik Klips (07094.96)	Use to attach fence wire to ceramic insulators

T-POST INSULATORS

All Red Snap'r t-post insulators are designed to fit t-posts ranging from 1¼" to 1⅜". They feature unique, unbreakable snap-on attachments for fast and secure installation.

Item Number and Description	Fence Wire	Use with High Tensile?	Colors	Model	Use with Low Impedance Controllers?
PL25TP Wrap-around t-post pin lock insulator	All fence wire, not poly rope or poly tape	Yes	Yellow Black White	YPL25TP PL25TP WPL25TP	Yes
TP25N Wrap-around T-post insulator	All fence wire, not poly tape	No	Yellow Black White	YTP25N TP25N WTP25N	Yes
BSTP25N Backside of T-post or U-Post insulator	All fence wire, not poly tape	No	Yellow Black White	YBSTP2 BSTP25N WBSTP25N	Yes
TPX25N Wrap-around 5" t-post extender insulator	All fence wire, not poly tape	No	Yellow Black White	YTPX25N TPX25N WTPX25N	Yes
SF25TP Economy T-post insulator	Steel fence wire	No	Yellow	SF25TP	No
PT25TP Poly tape insulator	Poly tape up to 1½" wide	No	Yellow Black White	YPT25TP PT25TP WPT25TP	Yes
PT25TPX 5" poly tape extender insulator	Poly tape up to 1½" wide and poly rope up to ½" diameter	No	Yellow Black White	YPT25TPX PT25TPX WPT25TPX	Yes
SC10N Snap'r Cap'r insulator for top of t-posts	Poly tape up to 1½" wide or poly rope up to ½" diameter	No	Yellow Black White	YSC10N SC10N WSC10N	Yes

ROD POST INSULATORS

Red Snap'r rod post insulators have a self-centering post cavity with a spin-on nut that fits posts ranging from ¼" to 9/16" in diameter (unless otherwise noted in the chart below).




Item Number and Description	Fence Wire	Use with High Tensile?	Colors	Use with Low Impedance Controllers?
RP25N Rod post insulator	All fence wire and poly rope, not poly tape	No	Yellow YRP25N Black RP25N White WRP25N	Yes
SRP25N Rod post or "sucker" rod posts from ¼" to ¾" diameter	All fence wire and poly rope, not poly tape	No	Yellow YSRP25N Black SRP25N	Yes
PT25RP Poly tape insulator	Poly tape up to 1½" wide	No	Yellow YPT25RP Black PT25RP White WPT25RP	Yes
SF25RP Economy round post insulator	Steel fence wire	No	Yellow SF25RP	No

CORNER POST INSULATORS - PLASTIC

Corner post insulators are designed to withstand the additional tension generated by the fence line pulling from the anchor point.




Item Number and Description	Fence Wire	Use with High Tensile?	Colors	Use with Low Impedance Controllers?
WAI10 Wrap-around insulator	Smooth steel wire and 12½ ga. high tensile wire	Yes	Black only	Yes
DC10 Donut corner insulator, plastic Unbreakable polycarbonate	All fence wire and poly rope, ½" poly tape	Yes	Yellow DC10 White WDC10	Yes
TRC10 Heavy duty corner insulator, plastic	All fence wire and poly rope, not poly tape	No	Yellow YTRC10 Black TRC10	Yes
CP10 Standard corner post insulator	Poly wire or light gauge steel wire	No	Yellow YCP10 Black CP10	No

CORNER POST INSULATORS – CERAMIC



Item Number and Description	Fence Wire	Use with High Tensile?	Colors	Use with Low Impedance Controllers?
WP6 1⅝" diameter insulator	All fence wire and poly rope, ½" poly tape	Yes	Ceramic White	Yes
WP36 1¾"diameter insulator	All fence wire and poly rope, ½" poly tape	Yes	Ceramic White	Yes
WP4 Heavy duty U-shaped insulator	All fence wire and poly rope, not poly tape	Yes	Ceramic White	Yes

SPECIALTY INSULATORS

Some electric fencing situations are unique, requiring their own special type of insulator. A chain link fence insulator is used for placing electric fence wires on a chain link fence to control animals that like to dig or jump. A tube-clamp insulator is a versatile option for managing livestock contained in a standard tube-type stock or corral panel enclosure.

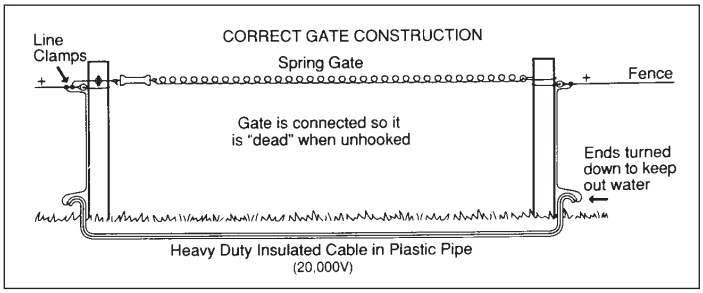
Item Number and Description	Fence Wire	Use with High Tensile?	Colors	Use with Low Impedance Controllers?
CX25 Chain link fence insulator	All fence wire and poly rope, not poly tape	No	Yellow YCX25 Black CX25 White WCX25	Yes
TC10 Tube clamp insulator	All fence wire and poly rope, not poly tape	No	Black TC10	Yes

CX25
Snap-on design attaches easily and securely, extending fence wire 3½" away from fence.

TC10
Adjustable to fit all horizontal tubes from 1⅝" to 1¾" in diameter. Unique ratchet lock prevents slippage.

GATE OPENINGS

Plan gate openings in your fence where people, animals and equipment need easy access to barns, stables or pastures. Give some advance thought to the location of gate openings and include these in the sketch of your fence layout. (See page 2)



Electrified gates are made from the same type of wire as the material used in your fence line. The number of gate strands should match the number of lines in your fence.

For easy assembly, consider using the gate-handle kits specific to the type of post or wire you are using. Our kits include the handle, insulators, hardware and simple installation instructions.

Depending on where the gate is located, you may need 20,000 volt underground hookup wire to carry the electrical current under the gate opening to the other side. This allows the fence to remain electrified even when the gate is open. A non-electrified metal gate also requires an underground wire.

GATE HANDLES AND KITS

	Item Number and Description	Fence Wire	Use with High Tensile?	Colors	Use with Low Impedance Controllers?
	HDRGH10 Heavy-duty gate handle Strongest gate handle available.	All fence wire and poly rope, not poly tape	Yes	Yellow YHDRGH10 Black HDRGH10	Yes
	RGH10 Rubber gate handle Withstands cold and weather.	All fence wire, not poly rope or poly tape	Yes	Yellow RGH10 White WRGH10	Yes
	PG10 Plastic gate handle	All fence wire, not poly rope or poly tape	Yes	Yellow YPG10 White WPG10 Black PG10	Yes
	SG1 16' Spring gate kit Highly visible, won't sag	For gates using wood posts	Yes	Black SG1	Yes
	WPGK10 Wood post gate kit	All fence wire, not poly rope or poly tape	Yes	Yellow YWPGK10 Black WPGK10 White WWPGK10	Yes
	TPGK10 T-Post gate kit	All fence wire, not poly rope or poly tape	Yes	Yellow YTPGK10 Black TPGK10 White WTPGK10	Yes
	WPTGHK1 Poly tape gate kit for wood posts	For poly tape	No	White WPTGHK1	Yes
	Underground hook up wire UGC50—50' 12½ ga. wire 01404.92—50' 14 ga. wire 07090.92—125' 14 ga. wire	For underground electrical connection between fence controller and fence line or for permanent gates	Yes	Black	Yes

Horse-Sense Electric Fence System®

This system is the logical alternative for the horse enthusiast looking for an attractive and affordable fencing option.

The Horse-Sense Electric Fence System®

- Is easy to install
- Gives you a "white rail" look at a fraction of the cost
- Uses white poly tape to create a highly visible fence, safe for your horses
- Requires minimum maintenance once installed
- Gives you the flexibility to modify or expand as needed

HORSE-SENSE SYSTEM CHECKLIST

Use the checklist to determine the quantities you will need for each component.

1 Fence Controller (page 4-8)

Low Impedance Fence controller (AC, DC, Solar) _____ (model #)

Perimeter to enclose (in feet) _____ (feet)

2 Posts

Line posts

Type of Line Posts (wood or T-post) _____ (post type)

Line post spacing (12' recommended) _____ (spacing in feet)

TOTAL # of line posts (perimeter feet ÷ post spacing) _____ (total line posts)

Corner posts – wood

Number of gates (2 posts per gate) _____
PLUS
Number of corners _____
PLUS
Number of tensioning points other than gates, corners _____
EQUALS
TOTAL number of wood corner posts _____ (total wood corner posts)

Vinyl Sleeves

Vinyl Sleeve for T-posts (if using line t-posts) _____ (number of t-posts)

Vinyl Sleeve for wood posts
(total # of wood posts used for corner and line) _____ (number of wood posts)

3 Fence Wire and Splicers *Select one of the three fence wire options*

½" white poly tape (PTW5) with small splicer buckle
perimeter feet x number of strands ÷ 656 = # rolls needed _____ (number of rolls)

Small splicer buckle (SBS4)
number needed = number rolls of ½" poly tape _____ (number of splicers)

OR

1½" white poly tape (PTW6) with large splicer buckle
perimeter feet x number of strands ÷ 656 = number of rolls needed _____ (number of rolls)

Large splicer buckle (SBL4)
number needed = number of rolls of 1½" poly tape _____ (number of splicers)

OR

¼" white poly rope (RSR660) with splicer
perimeter feet x number of strands ÷ 660 = number of rolls needed _____ (number of rolls)

Poly rope splicer (PRS2)
number needed = number of rolls of ¼" poly rope _____ (number of splicers)

4 Insulators

Line Post Insulators (WPT25WPS)
number of line posts x number of strands ÷ 25 = # bags needed _____ (bags of line insulators)

Corner Post Insulator/
Tensioner with Electric Plate (WPT4UTEP)
number of WPT4UTEP = number of fence strands _____ (number WPT4UTEP)

Corner Post Insulators/Tensioners (WPT4UT)
number of WPT4UT = number of wood posts x number of strands of tape or rope – number WPT4UTEP _____ (number WPT4UT)

5 Other Fence Components

Poly tape clip (WPTC25)
1 bag per installation normally adequate _____

Poly tape Jumper Kit (PTJK1)
number of PTJK1 = number of WPT4UTEP ÷ 4 _____ (number of jumper kits)

Poly Tape Connector Clamp (PTCC1)
Need 1 if using poly tape _____

Poly Tape Gate Handle Kit (WPTGHK1)
number of gates x number of strands = number of kits needed _____ (number of gate kits)

Note: Grounding System see page 9, other accessories see page 26.

1) FENCE CONTROLLER

Select a low impedance fence controller (pages 4-8) with sufficient energy for your fence.

2) POST SELECTION AND SPACING

Plan to use wood posts at corners, gates, and all tensioning points. Wood posts or T-posts may be used for line posts. The recommended post spacing is 12 feet. Some applications may require additional wood posts for tensioning at the top and bottom of hills or for 100-200' long runs of fence.

White vinyl sleeves provide the finished white-rail look for your equine system. They are available in two sizes to cover wood posts or t-posts:

Vinyl T-Post Sleeve with Cap (VTPS16) 2" square x 5' fits all t-posts

Vinyl Wood Post Sleeve with Cap (VWPS4) 4" square x 5' fits 3½" diameter round or 3½" x 3½" square wood posts

3) FENCE WIRE AND SPLICERS

You may select ½" white poly tape, 1½" white poly tape, or ¼" diameter poly rope for your fence line. Choose the wider tape for greater visibility. The tape or rope you select will determine the splicer used to connect lines of tape or rope.

Number of strands
Four equally spaced strands provide optimum visibility. For mares and geldings, three equally spaced strands should be adequate. For stallions and colts, a minimum of four to five strands is recommended.

½" white poly tape (PTW5) with stainless steel buckle (SBS4)

1½" white poly tape (PTW6) with large stainless steel splicer buckle (SBL4)

¼" white poly rope (RSR660) with stainless steel splicer (PRS2)

4) INSULATORS AND TENSIONERS

Line Post Insulator (WPT25WPS) – Use on vinyl sleeves or wood posts with ½" or 1½" poly tape or ¼" poly rope. Screws included. 25 per bag.

Poly Tape Universal Tensioner with Electrical Plate (WPT4UTEP) – Used where an electrical connection is required:
1) Connection to fence controller
2) cross fencing 3) strand jumping. Kit includes 4 universal tensioners/stainless steel connector plates.

Poly Tape Universal Tensioner (WPT4UT) – Ideal for three types of fence situations:
1) corner insulator/tensioner
2) in-line tensioner
3) direction changes greater than 10° (up and down hill). Screws included. 4 per bag.

5) OTHER FENCE COMPONENTS

Poly Tape Clip (WPTC25) – Plastic clip to securely hold poly tape loose ends. One bag needed per fence installation. (25 per bag)

Poly Tape Electrical Strand Jumper Kit (PTJK1) – Connect poly tape fence strands. Includes 60" electrical wire, 4 stainless steel machine screws/wing nuts.

Poly Tape Connector Clamp (PTCC1) – Use to connect controller to poly tape. 1 clamp per bag.

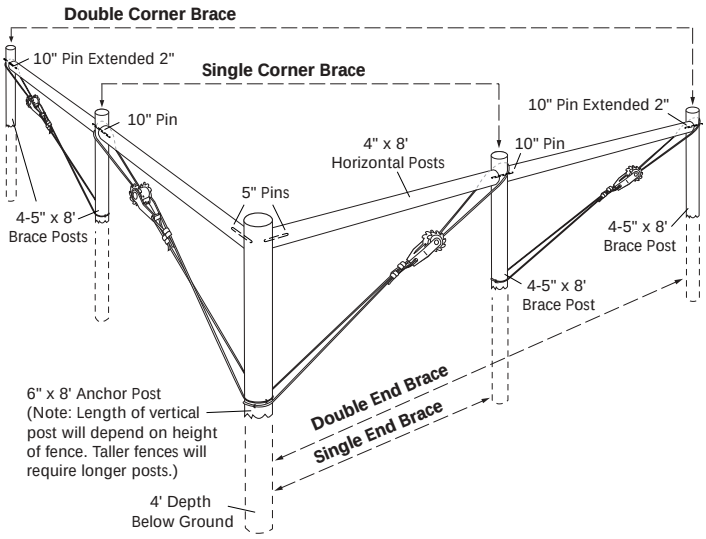
Poly Tape Gate Handle Kit (WPTGHK1) – Includes 1 gate handle, 2 universal tensioners, 1 electrical connector plate, and 4 screws. 1 kit per bag.

HIGH-TENSILE FENCE SYSTEM

Electrified high tensile fencing is an excellent choice for a permanent perimeter fence. It's an affordable, low-maintenance effective barrier for animal containment or exclusion, lasting up to 40 years.

Before you begin, sketch the area you wish to enclose, noting distances, corners, gate locations, and dips or rises in the terrain. Then use the check list on these pages to select the components you need.

HIGH TENSILE BRACING OPTIONS



HIGH-TENSILE SYSTEM CHECKLIST

Use the checklist to determine the quantities you will need for each component. Refer to pages 24-25 for product information.

1 Fence Controller

Fence controller model _____ (model number)

Perimeter feet to enclose _____ (feet)

2 Posts

Note: horizontal post in brace system should be 4" diameter x 8'' long

Corner/gate posts

Single Brace: (6 strands or less)

number of corners x 5 _____

PLUS

number of gates x 6 _____

PLUS

number of ends x 3 _____

EQUALS

Total single brace posts _____ (total number of single brace posts)

Double Brace: (7 strands or more)

number of corners x 9 _____

PLUS

number of gates x 10 _____

PLUS

number of ends x 5 _____

EQUALS

Total double brace posts _____ (total number of double brace posts)

Line posts

Line post spacing (in feet) _____

TOTAL number of line posts

(perimeter feet divided by post spacing)

(deduct for footage used in corners/gates/ends) _____ (total number of line posts)

TOTAL POSTS

(single brace posts + double brace posts + line posts) _____ (total posts)

3 Fence Wire

Number of strands _____

Total feet needed (perimeter feet x # strands) _____ (total feet of wire)

4 Installation Tools

You will need at least one of each tool for your installation. Depending on how many people are installing the fence, additional tools may be needed.

Spinning Jenny (SJ1)

Two-Hole Twisting tool (2HTT1)

Fence Wire Cutter (FWC1)

4-Slot Crimping Tool (4SCT1)

Strainer Handle (SH1)

5 Insulators

Line Post Insulators –

Select an insulator type for your line posts.

Pin-lock insulator for wood posts (PL25WP)

Pin-lock insulator for t-posts (PL25TP)
(if using t-posts)

4-Inch Tube Insulator (4TI50)

number of line posts x number of strands +
number of of vertical brace posts =
TOTAL number of line post insulators needed

(number of line insulators)

Corner and End Post Insulators

Select an insulator type for corner and end posts.

Wrap Around Insulator (WAI10)

Donut Corner Insulator (DC10)

Ceramic 1⅝" diameter (WP6)

Ceramic 1¼" diameter (WP36)

Ceramic U-shaped insulator (WP4)

number of corner, end or gate posts x number of strands =
TOTAL number of of corner/end post insulators needed

(number of corner/end insulators)

6 Fence Hardware

In-Line Strainer (ILS1)

1 per wire strand every 2,500 perimeter feet of fence wire
(add 500 feet to perimeter distance for each corner, dip, bend)

(number of strainers)

Large Tension Spring (LTS1)

Same number as in-line strainers determined above

(number of tension springs)

Crimping Sleeves

Sleeve size based on gauge of wire

(crimp sleeve size)

number of sleeves needed = number of strands x (number of gate posts + number of end posts) x 3

PLUS

number of strands x number of in line strainers x 2

PLUS

number of strands x number of wire splices x 3

TOTAL crimp sleeves needed

(total number of crimp sleeves)

Fence Wire Taps (FWT10)

number of wire taps = number of electrical connections required

Wire Link 12½ gauge (WL12)

number of wire links = number of of wire splices

Wire Vise 12½ gauge (WV125)

number of wire vises = number of end posts attaching non-electric wire to

5-Inch or 10-Inch Galvanized Brace Pin (GBP5 or GBP10)

number of corner posts x 2 = number of 5" pins needed

(number of 5" pins)

number of vertical brace posts = number of 10" pins needed

(number of 10" pins)

Duck Bill Anchor (DBA1)

As needed to anchor posts in loose or moist soil

Barbed Staples (BS5)

If using tube insulators: number of wood posts x number of wire strands

(number of staples)

If pin lock insulators: number of wood posts x number of non-electrified wire strands

(number of staples)

Note: Grounding System see page 9, other accessories see page 26.

High Tensile System

1) FENCE CONTROLLER

Select a low impedance fence controller (pages 4-8) with sufficient energy for your fence.

2) POST SELECTION AND SPACING

Because the distance between posts in a high tensile system can be 30'–90', and the wire is under tension, wood posts are recommended. Line posts should be a minimum 4" in diameter, with 6-8" diameter posts used for corner posts and gate posts. In some cases T-posts may be used for line posts.

Post Length

When purchasing posts, be sure to allow additional length for sinking posts into the ground. As a general guide, the overall post length should be the depth driven into the ground, plus the height of the top wire, plus 2".

Post Spacing

Post spacing depends on many factors, including the animal being controlled, the number of wires used, the number of spacers between posts, the amount of animal pressure (the more animals per acre, the less distance between posts) and the terrain. The number of wires also determines the type of bracing used at corners and gate openings.

Typical Post Spacing

Species	Number of Strands	Post Spacing	Corner Bracing
Dairy Cattle	2-4	30'–90'	Single (requires 3 posts)
Beef cattle, sheep, goats	4-6	30'–90'	Single (requires 3 posts)
Hogs	3	30'	Single (requires 3 posts)
Deer (exclusion)	6 +	30-60'	Double (requires 5 posts)

Predator control requires additional wire strands spaced appropriately for the type of predator.

3) FENCE WIRE

Your high tensile fence system is most effective when electrified. Use 12½ gauge high tensile wire. When properly tensioned to 250 lbs., the wire will flex under pressure.

Wire spacing

Wire spacing will vary depending on the animal. Refer to page 11 for common wire spacings. *(Note: high tensile wire is not recommended for horses.)*

4) INSTALLATION TOOLS

Some special tools are required for installation of your high tensile fence system.

Installation Tools

Spinning Jenny Fence Wire De-reeler (SJ1) 1 per box
Use for easy payout of coiled high tensile fence wire. Failure to use a spinning jenny will result in tangled, unmanageable wire. Holds up to 4,000 feet of wire. Handle coiled wire with caution and wear appropriate safety gear including gloves and safety glasses.

Two-Hole Twisting Tool (2HTT1) 1 per pack
Essential tool for bending or twisting high-tensile wire or for twisting T-post or spacer clips to fasten wire onto posts. Use with up to 8 gauge wire. Plan on 1 per person working the installation.

Fence Wire Cutter (FWC1) 1 per pack
Hardened jaws cut high-tensile wire up to 12½ gauge. Spring-loaded handles lock when closed for easy carrying. Plan on 1 per person working the installation.

4-Slot Crimping Tool (4SCT1)
Use when splicing fence wire with crimping sleeves. Works with 9–15½ gauge wire. One per fence installation.

Strainer Handle (SH1)
Use to increase line tension at each in-line strainer. Use caution when tensioning high tensile wire. Plan on 1 per person working on installation.

5) INSULATORS

Line posts
We recommend either pin lock or tube insulators for high tensile fence systems. Both allow the fence wire to move as needed. Refer to page 15-17 for additional insulator information.

Pin-lock insulator for Wood Post (PL25WP) - Wood post pin lock insulator. Attaches with two nails, available in yellow or black

Pin-lock insulator for T-Post (PL25TP) – T-post pin lock insulator. Snaps on for easy installation. Available in yellow or black.

4-Inch Tube Insulator (4TI50) – Made of durable non-conducting polyethylene. Attaches with 2-inch barbed staple.

Corner and End Posts
There are five options for corner and end-post insulators:

Wrap Around Insulator (WAI10) – Slide wire through tube and wrap insulator around corner or end post. Secure with 2" barbed staple. Durable polyethylene with galvanized metal insert for added strength. Full 20" long for use with posts up to 6" in diameter.

Donut Corner Insulator (DC10) - made of unbreakable polycarbonate, extremely strong with 5,000-lb. tensile strength.

Ceramic Corner Insulators –
WP6 1⅝" diameter
WP36 1¼" diameter
WP4 Heavy duty U-shaped insulator

6) FENCE HARDWARE

In-Line Strainer (ILS1)
Strainers are used with the strainer handle to increase the tension on the fence wire to about 250 lbs. Install strainers every 1,500–2,500'. Strainers should be located in the middle of a fence span, for example halfway between two corner posts. Every friction point (corners, bends, dips, rises) reduces the strainer's tension capacity by about 500 feet. One strainer can tension wire through no more than two corners.

Large Tension Spring (LTS1)
Measures wire tension; 1" compression equals 150 lbs. tension. Helps absorb expansion and contraction of the fence wire. Use one with every in-line strainer.

Fence Wire Taps (FWT10) 10 per pack
Electrically connects jumper wire to fence wire, or hookup wire to fence wire. We recommend crimping twice for a secure connection. Crimping tool required.

Crimping Sleeves (25 splicers per pack)
Use for high-tensile wire splices and connecting wire to in-line strainers. Use 3 sleeves per splice for wire, two sleeves for end-post loops and in-line strainer attachments. Crimping tool required.

Sleeve Size/Part #	For Use with Wire Gauge
1-2 (CS1225)	14½ – 15½ ga. smooth
2-3 (CS2325)	12½ ga. smooth
3-4 (CS3425)	10 – 11 ga. smooth or 14 – 15 ga. barbed wire
4-5 (CS4525)	9 ga. smooth or 12½ – 13½ ga. barbed wire

12½ Gauge Wire Link (WL12) 5 per pack
Use to splice wire (one wire link replaces 3 crimping sleeves) or repair broken 12-12½ gauge wire. Simply insert wire into each end of link. No tools needed.

12½ Gauge Wire Vise (WV125) 5 per pack
Use with 12½ gauge wire as an end post fastener. Vise automatically locks wire when pulled through. No tools needed. Not for use with electrified wires.

5-Inch or 10-Inch Galvanized Brace Pin (GBP5 or GBP10) 5 per pack
Use to attach horizontal brace post to upright brace posts in corner and brace post assemblies. Class III galvanized for rust resistance and long life. 5" pins used in anchor posts; 10" pin used in vertical brace posts.

Duck Bill Anchor (DBA1) 1 per pack
Anchoring for corner posts or minor dips in fence line. Easy to install. Use to anchor posts in loose or moist soil.

Barbed Staples (BS5) 5 pounds per box
2-inch barbed staples ensure solid grip in posts. Class III galvanized steel for long life. (Approximately 50-60 staples per pound)

Grounding System
Sufficient grounding is required for your fence to function at it's best. See page 9 for grounding materials and installation information.

Other Accessories
You will need underground hook-up wire for connecting power at gates and fence openings. Other lightning protection and fence accessories are on page 26.

FENCE SYSTEM KITS—COMPLETE KITS FOR EASY INSTALLATION AND USE

K-9 Pet and Garden Kit (K-9 Kit)

- The K-9 Kit is a complete fencing system for enclosing small animals and protecting gardens from small pests. The kit is fast and simple to set up and easy to use. 6 month warranty. K-9 fence controller also available separately (model K-9). The K-9 Pet and Garden Kit includes:
- K-9 fence controller, UL listed
- 10 plastic posts
- 100 ft. poly wire
- Wire pins to attach wire to posts
- Direct discharge, no ground rod required

EQUINE KITS

EZEE Corral™ (EZEE)

Unique design uses 1½" bi-polar poly tape in self-contained reels; a ground rod is not needed to deliver a safe, effective shock. Everything you need for a 900-square-foot corral fits neatly in single canvas bag with shoulder and saddle straps. Weighs less than 22 pounds. Electric fence controller is integrated into a corner post and operates on 4 D-cell batteries.

Kwik Korral (KK1)

Complete and easy-to-use portable corral system. Great for trail rides and horse shows. Includes battery operated (4 D-cell) model B10LI fence controller, 8 poly step-in posts, 330 feet of ½" poly tape, ground rod, instructions, and carrying bag.

ACCESSORIES

Voltage Testers

A fence tester is indispensable for testing voltage levels on your fence line and fence controller. It is also helpful for finding fence line faults. Keep one on hand for regular fence line maintenance.

Digital Electric Fence Tester (DEFT1)

Provides digital accuracy and easy-read out. Measures up to 9,900 volts (9.9 kv). Durable plastic case has self-contained ground probe. Provides accurate readings on poly tape as well as poly wire and steel wire fences.

Eight-light Voltage Tester (RSVT8)

Neon lights indicate voltage levels, from 600 volts to 7000 volts.

Universal Fence Tester (UFT)
Simple tester with a single light indicates whether current is on the fence line.

Electric Fence Alarm (EFA1)
You can rest assured that your fence is working and your animals are safe with an electric fence alarm. The fence alarm goes off when your electric fence voltage drops below a preset level. It is equipped with both siren and light warning devices and can connect to an auto-dialer, a yard light, and other alarm applications. 12-volt battery operated (not included) with AC adapter available.

Lightning and Power Surge Protection
Lightning is often the cause of fence controller failure. When lightning strikes the fence, the sudden power surge can travel down the fence wire and damage the fence controller*. A variety of properly installed products can prevent or limit lightning damage.

- To prolong the life of your fence controller, consider disconnecting the fence controller from the power source when storms are near.
- Install a lightning diverter/arrestor to divert lightning to the earth before it can damage the controller. For greatest protection, install one lightning diverter/arrestor at each corner of the fence, but no closer than 50 feet to the fence controller.
- Use a lightning choke between the fence line and fence controller to dissipate power surges caused by lightning.
- Use an AC surge suppressor to protect against AC power surges.
- Use the Spring Gate Assembly (see gate kits page 19) for your gate opening. It can help to dissipate lightning surges as they travel down the fence line.

**All Zareba Systems fence controllers are warranted for lightning damage for one year from the date of purchase.*

Storm Guard (01667.92)
For use with low impedance fence controllers of 1 joule output or more. Attaches quickly and easily to the fence and ground terminals on the fence controller to reduce damage from lightning strikes.

Lightning Constrictor (LC1)
Combination lightning diverter and lightning choke assembly all in one. Install between fence line and fence controller.

07106.96

Lightning Diverter (07106.96) and Lightning Arrestor (LA1)
Both help to protect your fence controller by creating a “path of least resistance,” diverting lightning surges to the ground. Requires a separate ground rod system consisting of three (3) 6' or 8' long ground rods spaced 10' apart.

LA1

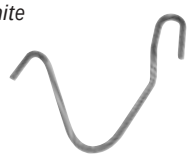
AC Surge Suppressor (1549.96)
Provides affordable fence controller protection from AC power surges up to 6,000 volts. UL listed with an operation indicator light.

COS1

WS100

FWF10 Yellow
WFWF10 White

140



TPWC25

OTHER FENCE ACCESSORIES

Cut-Off Switch (COS1)
Use to turn electric fence on and off at convenient locations such as fence corners and gates. Helps to locate short circuits. Easy to install.

Warning Flags (FWF10) and Warning Signs (WS100)
Give your electric fence high visibility with low-cost, easy to install warning signs. Recommend one every 200'-300'. Fence warning flags (FWF100 or WFWF100) wave in the breeze to make the fence line more visible to animals. Fence warning signs (WS100) make people aware of the electric fence.

Wire Winder (140)
Use to wind up and pay out fence wire. Spool holds approximately ½ mile of 17-gauge electric fence wire. Extra spools available. (40).

T-Post clips (TPWC25 photo)
Fits standard size 1.25 and 1.33 lb. T-posts. Use to attach non-electrified wire to t-posts. Attaches easily with pliers or screwdriver. Heavily galvanized 11-gauge wire.

Fence Controller Accessories and Parts
Check below for repair or replacement parts for your fence controller. If they are not available in your local farm or hardware store, please visit our web site at ***www.zarebasystems.com*** for ordering information.

Item	Description	Part number
Three-prong chopper (1 per pack)	For weed-chopper fence controllers with three-prong chopper receptacles	07053.92
Four-prong chopper (1 per pack)	For weed-chopper fence controllers with four-prong chopper receptacles	07054.92
1 amp fuse (5 per pack)	Replaceable 1 amp fuse for all fused 110-volt models	07055.92
Fuse Cap (2 per pack)	Replacement for Zareba fencers manufactured prior to 1991 (except Red Snap'r)	07064.92
Fuse Cap (2 per pack)	Replacement for Red Snap'r fencers manufactured prior to 1993. ½" long	FC1-3
Fuse Cap (2 per pack)	Replacement for Red Snap'r fencers manufactured after 1993. ¼" long	FC1-2
Fused plug (1 per pack)	AC plug for use with replaceable 1 amp fuses (fuses not included)	07063.92
Battery clips (2 per pack)	Positive (+) and negative (-) clips to connect fencer to battery posts	07066.92
Power Module (1 per pack)	For Zareba A20CP style fence controllers (909M and S100) manufactured prior to August, 1995	07067.92
Circuit Pak (1 per pack)	For Zareba A20CP style fence controllers (909M and S100) manufactured after July, 1995	08010.92
Fuse holder (2 per pack)	Replacement fuse holders for Zareba fencers manufactured prior to 1994 (except Red Snap'r)	07062.92

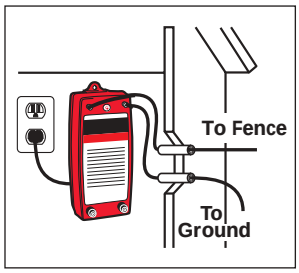
ELECTRIC FENCE INSTALLATION

Every Zareba Systems fence controller comes with a detailed installation manual. In addition, individual components include "how-to" instructions to assist in your fence system assembly.

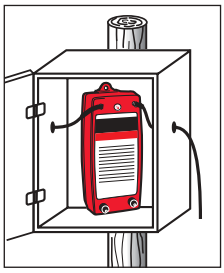
Location of your Fence Controller
Your fence controller should be:

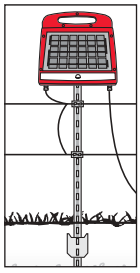
1 Sheltered from the weather (except solar controllers). Indoors protected from moisture or outdoors in a protective enclosure.
2 Close to 110 volt AC power source (unless battery or solar powered).
3 Accessible to a separate ground rod system.

Mount the fence controller off the ground using a screw or nail through the hanger hole in the fencer case. Connect the ground wire to the ground terminal and ground rods using insulated ground wire. Connect the fence terminal to the fence wire using Zareba 20,000 volt hook up wire. (See page 9 for grounding information)



Inside Installation


Outdoor Sheltered Installation


Solar Unit Installation

Items You'll Need
It's a good idea to gather a few common tools before you begin installing your electric fence. We also recommend that you wear protective gloves and clothing during the installation.

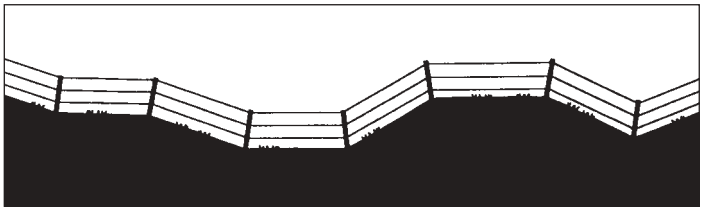
- *Post hole digger and/or T-post driver*
- *Shovel*
- *Phillips and standard screwdrivers*
- *Hammer*
- *String line*
- *Tape measure*
- *Cordless drill*
- *Level*
- *Scissors*

High tensile fencing requires some additional, unique tools. See high tensile fencing products on page 22.

ADDITIONAL TIPS

Connections are Critical
Use properly insulated wire for all connections. Proper wire connectors, clamps, and splices throughout the fence will help ensure positive electrical connections. Use only high-quality insulators and gate handles, like those from Red Snap'r and Zareba Systems. If using metal fence posts, make sure the fence wires cannot touch the posts.

Post Spacing and Positioning
Don't worry about spacing posts evenly. On level terrain they can be further apart; on uneven terrain, posts need to be spaced wherever there is a high or low spot. On hillsides, posts should be installed perpendicular to the slope. This keeps the wire at the proper height and spacing and prevents it from binding on insulators or clips.



Regular Fence Maintenance is Important
Once installed, checking the fence line should become a regular part of your routine. Keep insulators free from dirt, dust, and cobwebs. If possible, keep the fence line free from weeds. Weeds can draw power from the fence, causing it to lose efficiency. Check for tree limbs and other debris that may be touching the fence. A voltage tester (see page 26) can help you determine that adequate voltage is on the fence line.

Keeping It All Under Control
We hope this planning guide provided the basic information you needed to plan and select components for your fencing system. A well-planned and properly installed system, combined with high-quality Zareba Systems products, will ensure that your fence performs for years to come.

For more information, please visit our interactive fence planning guide on our web site at ***www.zarebasystems.com.***

Thank you for choosing Zareba Systems.

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