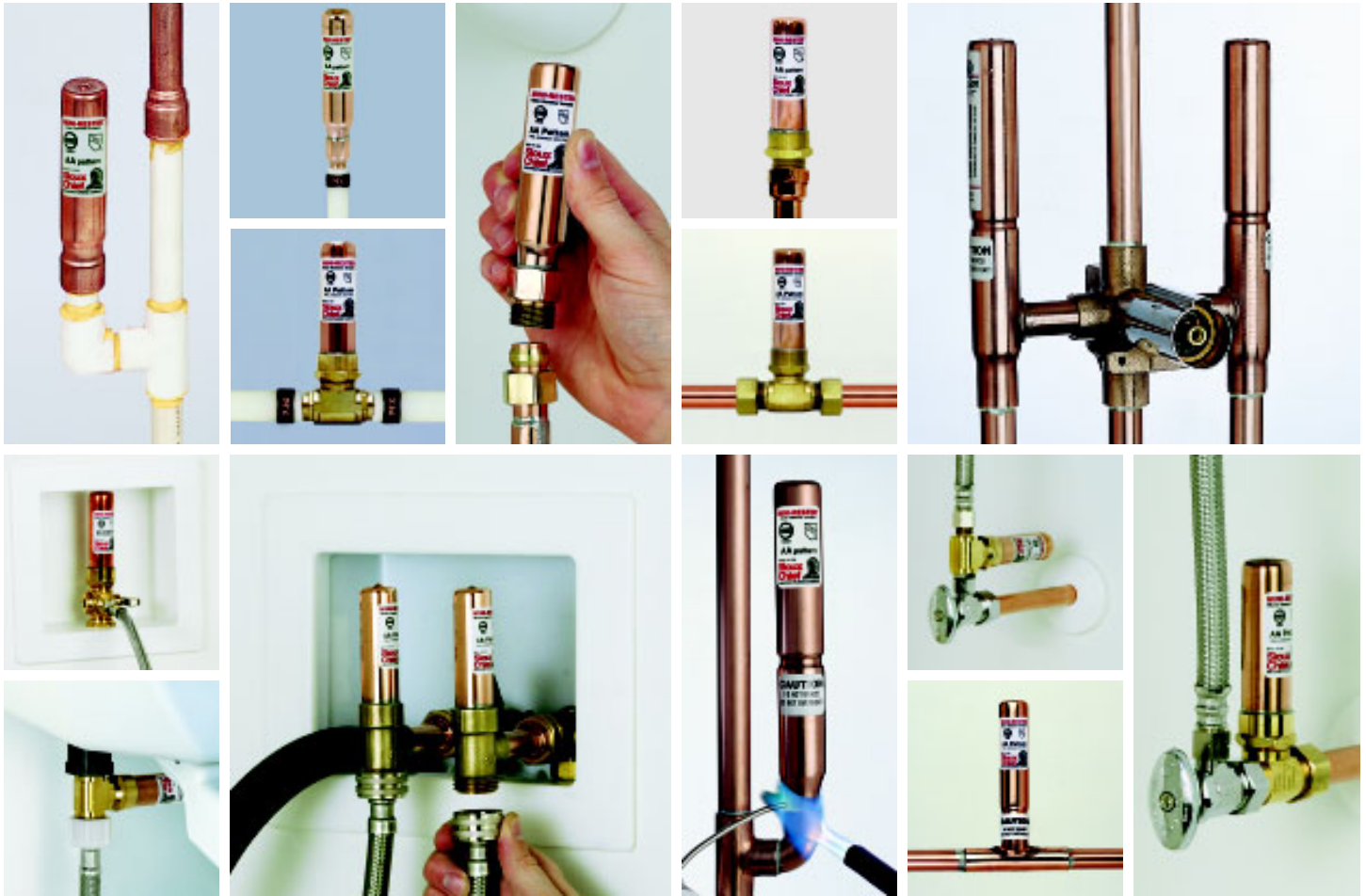


# Mini-Rester™

## Single Fixture Water Hammer Arrester



***Your permanent, affordable solution to water hammer.***



Listed by UPC/IAPMO  
to meet UPC-2003



Certified by ASSE to the  
ANSI/ASSE 1010-1996  
Standard

**IPC**

Conforms to IPC-2003

**Sioux Chief**  
**Smart**



Hangers &  
Brackets



Preformed  
Copper



Arresters &  
Trap Primers



Drainage  
Products



Plumbing  
Specialties

Pressurized  
air cushion



Seamless, cold rolled,  
and spin closed

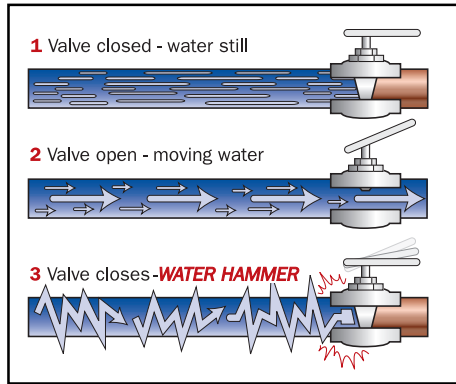
Dual o-ring  
piston

**AA size**



# What is Water Hammer?

Although water hammer is a subject usually left up to plumbing engineers, the effects of water hammer must be dealt with every day by plumbing contractors everywhere. Water hammer is easily recognized by the banging or thumping noise that's heard when valves are shut off. Although

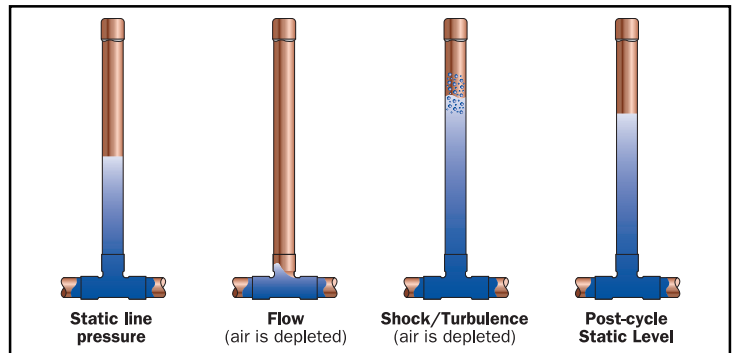


this is an easy way to recognize the problem, water hammer doesn't always make these telltale noises. Water hammer occurs when the flow of moving water is suddenly stopped by a closing valve. This sudden stop results in a tremendous spike of pressure behind the valve which acts like a tiny explosion inside the pipe. This pressure spike reverberates throughout the plumbing system, rattling and shaking pipes, until it is absorbed. Normally, a sufficient pocket of air will absorb such a pressure spike, but if no pocket of air is present, expensive fixtures and appliances within the plumbing system will be damaged as they are left to absorb this pressure spike.

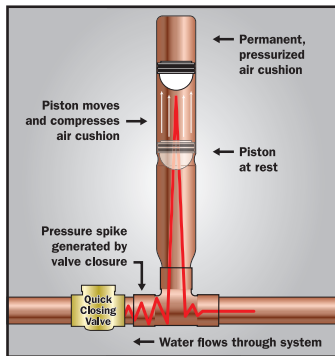


## Why Air Chambers Don't Work

It used to be thought that an air chamber, or capped stand pipe, was an effective solution to controlling water hammer. However, within an air chamber, nothing separates the air from the water. It only takes a few short weeks before the air is absorbed into the water, leaving the air chamber waterlogged and completely ineffective. Laboratory tests confirm that the air is depleted by simple air permeation and by interaction between static pressure and flow pressure. In the diagram shown, (right) notice the difference in water level between "Static Line Pressure" and "Post-cycle Static Level."



## Controlling Water Hammer



The most effective means of controlling water hammer is a measured, compressible cushion of air which is permanently separated from the water system. Sioux Chief arresters employ a pressurized cushion of air and a two o-ring piston, which permanently separates this air cushion from the water system. When the valve closes and the water flow is suddenly stopped, the pressure spike pushes the piston up the arrester chamber against the pressurized cushion of air. The air cushion in the arrester reacts instantly, absorbing the pressure spike that causes water hammer. Although arresters are typically tested to 10,000 cycles, Sioux Chief arresters have been independently lab tested to withstand 500,000 cycles without failure. All Sioux Chief arresters are guaranteed to control water hammer for the lifetime of the plumbing system.

*For more information about water hammer control, check out our Engineer Report or Water Hammer FAQ. Call or visit our web site to request a copy.*

## National Model Codes

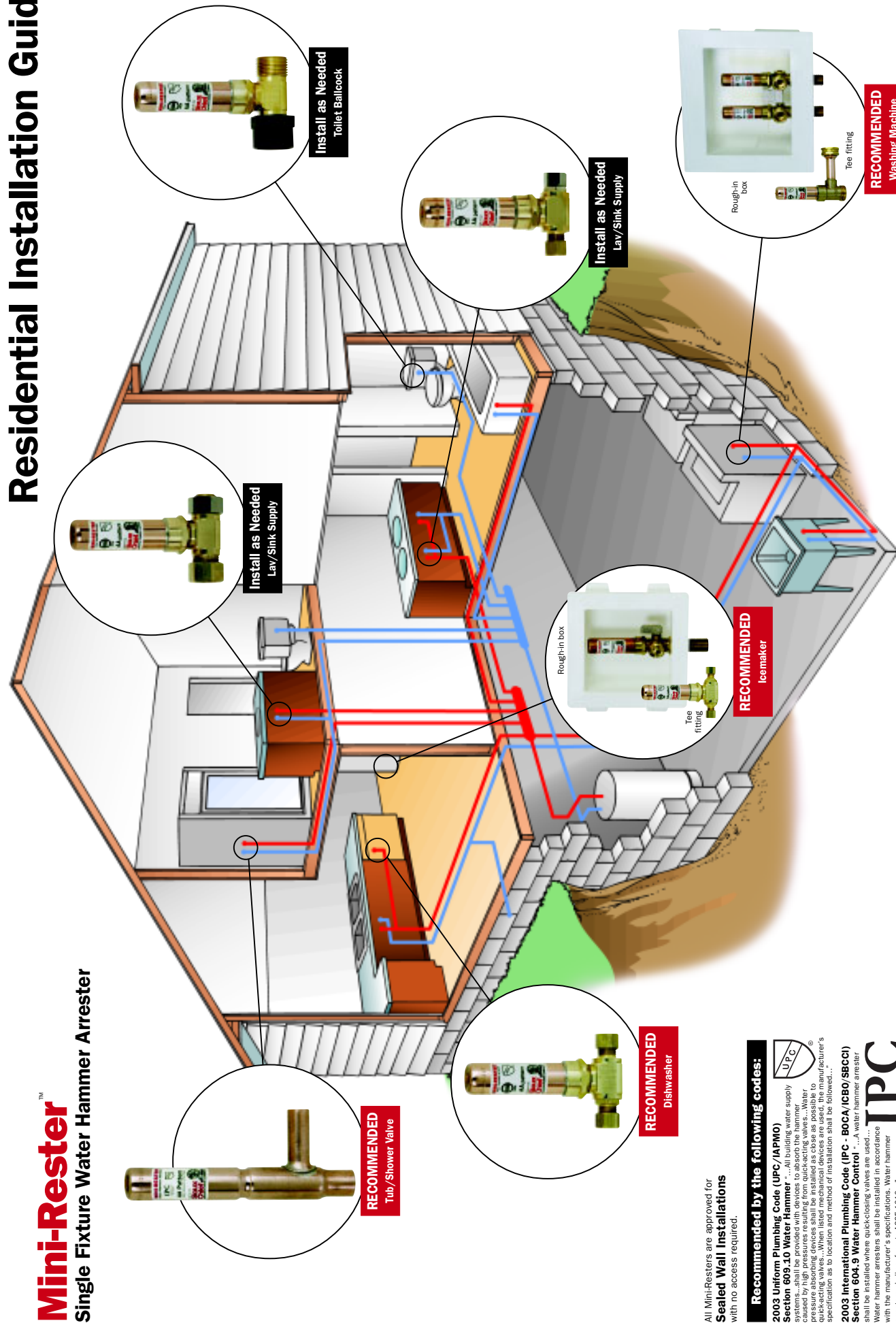
Both major National Model Codes require water hammer control in all residential and commercial water supply systems. Since 1997, both the Uniform Plumbing Code (UPC) sponsored by the International Association of Plumbing and Mechanical Officials (IAPMO) and the International Plumbing Code (IPC) sponsored by the International Code Council (ICC) have required water hammer control on all quick-closing valves. The AA arrester (Mini-Rester) is by far the most common approved device that satisfies these codes. Plain air chambers do NOT satisfy the requirements of either code. Many states across the country are now enforcing these arrester requirements, while many more are in the process of doing the same. With the Mini-Rester, code officials now realize proper water hammer control is permanent, affordable, and very feasible, even for residential applications.



# Mini-Rester™

## Single Fixture Water Hammer Arrester

# Residential Installation Guide



All Mini-Resters are approved for  
**Sealed Wall Installations**  
with no access required.

**Recommended by the following codes:**

**2003 Uniform Plumbing Code (UPC/IPMCO)**  
**Section 609.10 Water Hammer** "...All building water supply systems... shall be provided with devices to absorb the hammer caused by high pressures resulting from quick-closing valves... Water pressure absorbing devices shall be installed as close as possible to the fixture or valve... The location and method of installation shall be followed..."

**2003 International Plumbing Code (IPC - BOCA/ICBO/SBCCI)**  
**Section 604.5 Water Hammer Control** "...A water hammer arrester shall be installed where quick-closing valves are used... Water hammer arresters shall be installed in accordance with the manufacturer's specifications. Water hammer arresters shall conform to ASSE 1010..."





# The **Mini-Rester**™ . . . Well Connected

*No matter what your application, we have the connection you need.*



## Washing Machine

Install between laundry supply valves and hoses



## Tub & Shower Valve

Sweats directly into hot & cold supply of mixing valve.



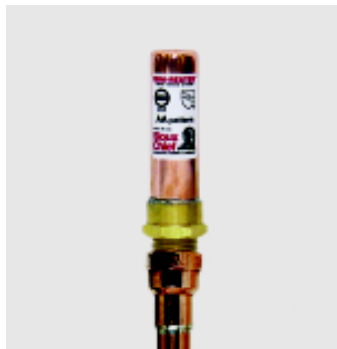
## Stop Valve Connection

Unique fitting installs between  $\frac{3}{8}$ " Compression stop and supply tube, or between stub out and  $\frac{5}{8}$ " Compression stop



## Male Sweat

Rough-in sweat anywhere in a system.  $\frac{1}{2}$ " or  $\frac{3}{4}$ " male swt.



## $\frac{1}{2}$ " Male Thread

New rough-in installations with  $\frac{1}{2}$ " female thread fittings.



## Straight Compression

$\frac{5}{8}$ " OD is perfect for  $\frac{1}{2}$ " nom. air chamber replacement.



## Full-Slip Sweat Tee

$\frac{1}{2}$ " Full-slip tee easily sweats onto any copper system.



## $\frac{1}{2}$ " CPVC

Easy rough-in or retrofit installation in any CPVC system



## Compression Tees

Compression tees for  $\frac{1}{4}$ " OD,  $\frac{3}{8}$ " OD, &  $\frac{5}{8}$ " OD



## Ballcock Connection

Installs under tank between ballcock and supply tube



## PEX Connection

Straight or tee pattern insert fitting for PEX systems

Available with MIP/FSWT, PEX, CPVC, or ProPEX connection



## Laundry Box

Quality rough-in laundry box available with dual drain and single lever shut-off; or center drain with hot/cold shut-offs

Available with MIP/FSWT, PEX, or CPVC connection



Available with MIP/FSWT, PEX, CPVC, or ProPEX connection



## Icemaker Box

Rough-in wall outlet box with arrester & quarter-turn shut off

## ProPEX Tee

Barbed insert connection for ProPEX applications

# Mini-Rester™

## Single Fixture Water Hammer Arrestor

Item No.	Description	Min. Qty.	Case Qty.	List Price Each
<b>BULK</b>				
660-2B	1/2" MIP thread connection	50	50	12.75
660-HB	3/4" Female swivel hose thread x 3/4" male hose thread tee (for washing machine)	25	25	15.50
660-SB	1/2" male sweat	50	50	12.50
660-3SB	3/4" male sweat	50	50	14.00
660-CB	5/8" O.D. compression straight	50	50	13.75
660-TC0B	1/4" O.D. x 1/4" O.D. compression tee (for icemaker tube)	25	25	16.75
660-TC1B	3/8" O.D. x 3/8" O.D. compression tee (for supply tube)	25	25	16.75
660-TB	5/8" O.D. x 5/8" O.D. compression tee (for 1/2" copper tube)	25	25	16.75
660-TKB	Female swivel ballcock nut x male ballcock thread tee	25	25	18.75
660-TR1B	3/8" O.D. comp. x 3/8" reverse nut tee (for 3/8" OD compression stop valve)	25	25	16.75
660-TRB	5/8" O.D. comp. x 5/8" reverse nut tee (for 5/8" OD compression stop valve)	25	25	17.00
660-T22	1/2" full-slip female sweat tee (no stop)	25	25	14.00
660-TS	1/2" male sweat open end branch x 1/2" female sweat tee	50	50	17.00
660-TW2	1/2" Wirsbo ProPEX tee	25	25	17.00
660-TX1	3/8" PEX barb tee	25	25	16.50
660-TX2	1/2" PEX barb tee	25	25	15.75
660-X2B	1/2" PEX barb straight	50	50	12.75
660-V2B	1/2" CPVC socket	50	50	14.75
662-112	Ice maker outlet box with ball valve & arrester - 1/2" MIP/FSWT connection	10	10	36.50
662-112C	Ice maker outlet box with ball valve & arrester - 1/2" male CPVC connection	10	10	36.50
662-112W	Ice maker outlet box with ball valve & arrester - 1/2" Wirsbo ProPEX connection	10	10	36.50
662-112X	Ice maker outlet box with ball valve & arrester - 1/2" PEX barb connection	10	10	36.50
662-332	Dual drain laundry box with single lever valve & arresters - 1/2" MIP/FSWT connection	10	10	53.60
662-332C	Dual drain laundry box with single lever valve & arresters - 1/2" male CPVC connection	10	10	53.60
662-332W	Dual drain laundry box with single lever valve & arresters - 1/2" Wirsbo ProPEX conn.	10	10	53.60
662-332X	Dual drain laundry box with single lever valve & arresters - 1/2" PEX barb connection	10	10	53.60
662-334	Center drain laundry box with separate valves & arresters - 1/2" MIP/FSWT connection	10	10	53.60
662-334C	Center drain laundry box with separate valves & arresters - 1/2" male CPVC connection	10	10	53.60
662-334X	Center drain laundry box with separate valves & arresters - 1/2" PEX barb connection	10	10	53.60
<b>CLAM SHELL</b>				
660-2	1/2" MIP thread	12	12	14.00
660-H	3/4" Female swivel hose thread x 3/4" male hose thread tee (for washing machine)	12	12	17.00
660-S	1/2" Male sweat	12	12	14.00
660-C	5/8" O.D. compression straight	12	12	15.00
660-TC0	1/4" O.D. x 1/4" O.D. compression tee (for icemaker tube)	12	12	18.00
660-TC1	3/8" O.D. x 3/8" O.D. compression tee (for supply tube)	12	12	18.00
660-T	5/8" O.D. x 5/8" O.D. compression tee (for 1/2" copper tube)	12	12	18.00
660-TK	Female swivel ballcock nut x male ballcock thread tee	12	12	20.00
660-TR1	3/8" O.D. comp. x 3/8" reverse nut tee (for 3/8" OD compression stop valve)	12	12	18.00
660-TR	5/8" O.D. comp. x 5/8" reverse nut tee (for 5/8" OD compression stop valve)	12	12	18.25

Note: Model numbers 660-C, 660-CB, 660-3SB, & 660-TS are not certified by ASSE to the ASSE 1010 Standard.

### DISTRIBUTED BY

tel: 1-800-821-3944  
 fax: 1-800-758-5950  
 www.siouxchief.com  
 P.O. Box 397  
 24110 South Peculiar Drive  
 Peculiar, Missouri 64078 U.S.A.

