

## Site Investigation Report

**Consumer:** Carol Gray  
**Address:** 411 Daisy Lane  
**City, State, Zip:** Bellflower, MO 63333  
**Phone Number:** 573-929-3442

**Manufacturer:** Home Repair Service  
**Address:** P.O. Box 1388  
**City, State, Zip:** Hamilton, AL 35570  
**Phone Number:** 866-518-4789

FILED

MAR 28 2005

**Dealer:** Americas Home Brokers, Inc.  
**Address:** 345 John Deere Drive  
**City, State, Zip:** Moscow Mills, MO 63362

Missouri Public  
Service Commission

**Inspector's Name:** Kathy Haberstroh  
**Serial Number:** BC02AL0131841AB  
**Date of Manufacturer:** 4-2-02  
**Date Inspected:** April 15, 2003

**HUD Label:** NTA1190050/51  
**Date of Installation:** July 2002  
**Size:** 28 x 60

References to (3280. \_\_\_ etc.) are part of the Federal Manufactured Home Construction and Safety Standards.

**Item:** Findings:

Exhibit No. 9

Case No(s) MC-2005-0028

Date 3-02-05 Rptr KE

## 1. Set up deficiencies found:

- a. This home has been altered. Bathtub jets have been installed without an application for alteration. Dealer must apply for an "Application for Alteration" from this department, submit the appropriate paperwork, have the installation inspected and approved by this department.
- b. Dealer installed a sump-pump in the foundation of this home that does not work. There is approximately 6" of water under this home at the time of inspection.
- c. A vapor barrier has not been installed as per set up manual which requires at least 6 mil thick covering the entire area under the home and overlap it at least 6" at all joints.
- d. The electric crossover is exposed under the home. It is not installed as per the set up manual.
- e. The inside I-beams on both "A" half and "B" half are not supported 2' from the ends of the home as per the set up manual.
- f. The transverse beams are not spaced correctly under this home. The set up manual requires that on a home with a 10" I-beam the support is required to be every 10 ft.
- g. There are no marriage line piers installed at all under this home as per the set up manual.
- h. The frame-to-frame bonding wire is not connected as per the set up manual.
- i. There is a sanitary tee installed improperly in the main drain line under the kitchen. A sanitary tee may never be installed on its back. 3280.610 (g)(2)
- j. The drain line is not strapped every 4' as per the set up manual.
- k. The fireplace combustion air vent is not installed through the foundation to the outside of the home as per the manufacturers installation instructions.
- l. The home is not anchored to the foundation.
- m. Square D breakers have been installed for the A/C and the tub jets in a Cutler Hammer panel box. Cutler Hammer requires Cutler Hammer breakers only.

**Action Requested:**

Manufacturer to conduct a Subpart I on item(s): N/A  
 Dealer to correct item(s): 1 (a thru m)

**Notification:**

Notification to Manufacturer: Home Repair Service  
 Notification to Dealer: Americas Home Brokers, Inc.

RECEIVED

MAY 05 2003

MANUFACTURED HOUSING  
DEPARTMENT

**Time Allowed:**  
 No action required  
 15 days

Appendix F

## Site Investigation Report

Consumer: Carol Gray  
Address: 411 Daisy Lane  
City, State, Zip: Bellflower, MO 63333  
Phone Number: 573-929-3442

Manufacturer: Home Repair Service  
Address: P.O. Box 1388  
City, State, Zip: Hamilton, AL 35570  
Phone Number: 866-518-4789

Dealer: Americas Home Brokers, Inc.  
Address: 345 John Deere Drive  
City, State, Zip: Moscow Mills, MO 63362

Inspector's Name: Kathy Haberstroh  
Serial Number: BC02AL0131841AB  
Date of Manufacturer: 4-2-02  
Date Inspected: Re-inspection 12/30/03

HUD Label: NTA1190050/51  
Date of Installation: July 2002  
Size: 28 x 60

References to (3280, \_\_\_ etc.) are part of the Federal Manufactured Home Construction and Safety Standards.

### Re-inspection 12/30/03

#### Item: Findings:

##### 1. Set up deficiencies found:

- a. This home has been altered. Bathtub jets have been installed without an application for alteration. Dealer must apply for an "Application for Alteration" from this department, submit the appropriate paperwork, have the installation inspected and approved by this department.  
**AN APPLICATION FOR ALTERATION HAS NOT BEEN RECEIVED BY OUR OFFICE.**
- b. Dealer installed a sump-pump in the foundation of this home that does not work. There is approximately 6" of water under this home at the time of inspection. **SUMP-PUMP DOES NOT APPEAR TO BE INSTALLED DEEP ENOUGH, WATER IS STANDING UNDER THE HOME.**
- c. A vapor barrier has not been installed as per set up manual which requires at least 6 mil thick covering the entire area under the home and overlap it at least 6" at all joints. **VAPOR BARRIER HAS NOT BEEN INSTALLED UNDER THE HOME.**
- d. The electric crossover is exposed under the home. It is not installed as per the set up manual. **THERE IS A HOLE IN THE BOTTOM BOARD AND THE WIRES ARE STILL EXPOSED.**
- e. The inside I-beams on both "A" half and "B" half are not supported 2' from the ends of the home as per the set up manual. **CORRECTED - I-BEAMS ARE NOW SUPPORTED.**
- f. The transverse beams are not spaced correctly under this home. The set up manual requires that on a home with a 10" I-beam the support is required to be every 10 ft.  
**CORRECTED - JACK POSTS HAVE BEEN INSTALLED ON BASEPADS IN THE PROPER LOCATIONS.**
- g. There are no marriage line piers installed at all under this home as per the set up manual.  
**CORRECTED-MARRIAGE LINE PIERS HAVE BEEN INSTALLED.**
- h. The frame-to-frame bonding wire is not connected as per the set up manual.  
**CORRECTED-BONDING WIRE HAS BEEN CONNECTED.**
- i. There is a sanitary tee installed improperly in the main drain line under the kitchen. A sanitary tee may never be installed on its back. 3280.610 (g)(2)  
**CORRECTED-PROPER DRAIN LINE FITTING HAS BEEN INSTALLED.**

CONTINUED:

Appendix K

- j. The drain line is not strapped every 4' as per the set up manual.  
**DRAIN LINE IS NOT SUPPORTED EVERY 4' AS REQUIRED.**
- k. The fireplace combustion air vent is not installed through the foundation to the outside of the home as per the manufacturers installation instructions.  
**CORRECTED-COMBUSTION AIR VENT HAS BEEN INSTALLED.**
- l. The home is not anchored to the foundation.  
**CORRECTED-HOME IS WELDED TO THE TRANSVERSE BEAMS.**
- m. Square D breakers have been installed for the A/C and the tub jets in a Cutler Hammer panel box.  
Cutler Hammer requires Cutler Hammer breakers only.  
**CORRECTED-BREAKERS HAVE BEEN CHANGED.**

**Action Requested:**

Manufacturer to conduct a Subpart I on item(s): N/A

Dealer to correct item(s): 1 items not completed on first report.

**Notification:**

Notification to Manufacturer: Home Repair Service

Notification to Dealer: Americas Home Brokers, Inc.

**Time Allowed:**

No action required

30 days

**CONSUMER INFORMATION**

Name: Gray, Carol  
Address: 411 Daisy Lane  
City/State/Zip: Bellflower, MO 63333  
Phone: 573-929-3442

**INSPECTION INFORMATION**

Date of Re-Inspection: 2/23/04  
Re-Inspection: 5/11/04  
Inspector: Tim Haden

**HOME INFORMATION**

Date of Manufacture: 4/2/02  
Model: Multi-Section  
HUD Label #: NTA1190050/51  
Serial #: BC02AL0131841AB

**MANUFACTURER**

Name: Buccaneer / Cavalier  
Address: PO Box 1388  
City/State/Zip: Hamilton, AL  
Phone: 866-518-4789

NEW LIST

**DEALER**

Name: America's Home Broker's, Inc.  
Address: 345 John Deere Drive  
City/State/Zip: Moscow Mills, MO 63362  
Phone: 636-366-4750

**RESPONSIBILITIES**

Manufacturer to conduct a Subpart I on items: 1,2  
Dealer to correct items: 3,4

Manufacturer to conduct a Subpart I per the Manufactured Home Procedural and Enforcement Regulations 3282.401. References to Part 3280 refer to the Manufactured Home Construction and Safety Standards.

**SUMMARY OF PROBLEMS**

- 1) The toilet in the master bath is not set flush and secure on the floor.  
3280.607(b)(2)(v) ~~Section 3280.607(b)(2)(v)~~
- 2) The fireplace chimney is below the required minimum height above the home. The chimney must extend a minimum of 2' above the highest elevation of the home within 10' of the chimney. ~~Section 3280.607(b)(2)(v)~~

Dealer to correct the following set up deficiencies: Items 3 thru 4 refer to the manufacturer's installation set up manual. References to Part 3280 refer to the Manufactured Home Construction and Safety Standards.

**SUMMARY OF PROBLEMS**

- 3) The dealer has submitted an application for permission to alter for the purpose of installing a whirlpool pump and jets in the master bathtub. The whirlpool pump is not properly installed according to the manufactures installation instructions and the required codes. 3282.254  
~~Section 3282.254~~
- a) The pump mounting bracket is not secured to the floor under the tub. 3280.807(a)  
~~Section 3280.807(a)~~
- b) The pump has not been grounded. 3280.809(d)(1)  
~~Section 3280.809(d)(1)~~
- c) The receptacle outlet is not secured in place. 3280.808(n)  
~~Section 3280.808(n)~~
- d) The electric cable is not installed properly. The cable must either be run in the floor of the home and secured every 4 1/2' and within 12" of the outlet box, or installed in conduit under the home and properly supported not exceeding 4 1/2'. NEC 336-15, 3280.808(k)  
~~Section 3280.808(k)~~
- e) The sheathing of the NM cable has cuts in it. The NM cable may be repaired with electrical tape. 3280.808(s)  
~~Section 3280.808(s)~~
- f) The homeowner did not receive the whirlpool manuals.  
~~Section 3280.808(s)~~

NEW LIST

4) Set up deficiencies observed.

a) The electric cable installed under the home for the central air conditioner circuit is not protected in conduit from moisture and damage.  
3280.808(k)

Internal 2012-5-11-10

b) The drain line installed under the home is required to be supported every 4" minimum.

Internal 2012-5-11-10

c) Portions of the crossover heat duct are supported with metal wire and the wire is damaging the heat duct. The heat duct should be supported using corrosive resistant straps.

Internal 2012-5-11-10

d) The bolt holes in the bottom board along the centerline of the home need to be resealed.

Internal 2012-5-11-10

e) The jack post installed and secured to the transverse support beams must also be secured to the concrete footer.

Internal 2012-5-11-10

f) The jackpots installed under the main frame of the home between the transverse beams must be secured in place.

Internal 2012-5-11-10

Count One: Carol-Gray

3. Convert a tub Company has installed a jetted conversion to the bath tub This install was done by a Missouri Corporation to the standard set forth in there installation manual. This company sells this unit nation wide as a self install unit.

A-f Was completed by Convert ta tub company. The owner manual was left with the customer at the time of installation and has been faxed to the Missouri psc

4. Electric cable not in conduit the code states ready accessible and subject to moisture the cable is neither ready accessible or subject to moisture in its installation.

We re installed the wire in conduit.

B) Drain line not supported every 4' We installed ample strapping to complete

C) Crossover duct not properly supported. We strapped the crossover duct using plastic strap

D) Sealed and re sealed all bolt holes in bottom board

E) Jack Post not secured to beams and footers - Welded beams to transverse beams and anchored to concrete footer

F) Jack post no secure- Welded jackpost

In Summary All items completed on Carol Gray Home As of Feb 2005

The converta tub company stands behind the system that they installed and the system works all over the United states and the customer asked for this to be installed.

(b) **Type NMC.** Type NMC cable shall be permitted (1) for both exposed and concealed work in dry, moist, damp, or corrosive locations; (2) on the side and inside walls of masonry block or tile; (3) in a shallow chase in masonry, concrete, or adobe protected against nails or screws by a plate at least  $\frac{1}{16}$  inch (1.59 mm) thick and covered with plaster, or similar finish.

#### 336-4. Uses Not Permitted.

(a) **Type NM or NMC.** Types NM and NMC cables shall not be installed (1) in any dwelling or structure exceeding three floors above grade; (2) in service-entrance cable; (3) in commercial garages having hazardous (classified) locations as provided in Section 511-3; (4) in theaters and motion picture studios; (5) in storage battery rooms; (6) in hoists; (7) embedded in poured cement, concrete, or aggregate; or (8) in any other (classified) location except as permitted by Sections 501-4(b), 504-20, and 504-21. For the purpose of this article, the first floor of a building shall be that floor that has 50 percent or more of the exterior wall area level with or above finished grade. One additional level that is not level and not designed for human habitation and used only for parking, storage, or similar use shall be permitted.

(b) **Type NM.** Type NM cable shall not be installed (1) where exposed to corrosive fumes or vapors; (2) where embedded in masonry, concrete, or adobe, fill, or plaster; (3) in a shallow chase in masonry, concrete, or adobe, and covered with plaster, adobe, or similar finish.

#### B. Installation

**336-10. Exposed Work — General.** In exposed work, except as provided in Sections 300-11(a), 336-12, and 336-13, the cable shall be installed as specified in (a) and (b) below.

(a) **To Follow Surface.** The cable shall closely follow the surface of the building finish or of running boards.

(b) **Protection from Physical Damage.** The cable shall be protected from physical damage where necessary by conduit, electrical metallic tubing, Schedule 80 PVC rigid nonmetallic conduit, pipe, guard strips, or other means. Where passing through a floor, the cable shall be enclosed in metal conduit, intermediate metal conduit, electrical metallic tubing, Schedule 80 PVC rigid nonmetallic conduit, or other metal pipe and shall be at least 6 inches (152 mm) above the floor.

**336-11. Through or Parallel to Joists, Studs, and Rafters.** Type NM or NMC cable shall comply with Section 300-4 where installed in or parallel to joists, studs, rafters, or similar wood or metal members.

**336-12. In Unfinished Basements.** Where the cable is run at an angle to joists in unfinished basements, it shall be permissible to secure cables smaller than two No. 6 or three No. 8 conductors directly to the edges of the joists. Smaller cables shall either be run through bored

holes or on running boards. Where run parallel to the joists, cable of any size shall be secured to the sides of joists in accordance with Section 300-4(d).

**Accessible Attics.** The installation of cable in accessible attics and spaces shall also comply with Section 333-12.

**Bends.** Bends in cable shall be so made, and other handling shall be such that the protective coverings of the cable will not be damaged, and the bend shall have a radius less than five times the diameter of the cable.

**Supports.** Nonmetallic-sheathed cable shall be secured by staples, ties, straps, or similar fittings so designed and installed as not to damage the cable. Cable shall be secured in place at intervals not exceeding 4½ feet (1.37 m) and within 12 inches (305 mm) from every cable end, or fitting. Two conductor cables shall not be stapled on edge. Cables run through holes in wooden joists, rafters, or studs shall be continuously supported.

See Section 370-17(c) for support where nonmetallic boxes are used.

**Exception No. 1:** For concealed work in finished buildings or finished prefabricated buildings where such supporting is impracticable, it shall be permissible to fish the cable between access points.

**Exception No. 2:** A wiring device identified for the use, without a separate outlet box, incorporating an integral cable clamp shall be permitted where the cable is secured in place at intervals not exceeding 4½ feet (1.37 m) and within 12 inches (305 mm) from the wiring device. The loop of the cable shall be at least a 12-inch (305 mm) loop of the cable or 6 inches (152 mm) of a cable end available on the side of the finished wall to permit replacement.

**Devices of Insulating Material.** Switch, outlet, and tap devices of insulating material shall be permitted to be used without boxes in exposed wiring and for rewiring in existing buildings where the cable is concealed and fished. Openings in such devices shall form a close fit around the covering of the cable, and the device shall fully enclose that part of the cable from which any part of the covering has been removed.

Connections to conductors are by binding-screw terminals, there shall be as many terminals as conductors.

**Exception:** Where cables are clamped within the structure and terminated by a type identified for use with multiconductors.

**Boxes of Insulating Material.** Nonmetallic outlet boxes shall be used as provided in Section 370-3.

**Devices with Integral Enclosures.** Wiring devices with integral enclosures identified for such use shall be permitted as provided in Section 370-3, Exception No. 4.

ELECTRIC CODE

and a junction box or range or dryer receptacle.

(b) Threaded rigid metal conduit shall be provided with a locknut inside and outside the box, and a conduit bushing shall be used on the inside. Rigid nonmetallic conduit shall be permitted. Inside ends of the conduit shall be reamed.

(1) Switches shall be rated as follows:

For lighting circuits, switches, shall have a 10-ampere, 120-125 volt rating; or higher if needed for the connected load.

(2) For motors or other loads, switches shall have ampere or horsepower ratings, or both, adequate for loads controlled. (An "AC general-use" snap switch shall be permitted to control a motor 2 horsepower or less with full-load current not over 80 percent of the switch ampere rating).

(j) At least 4 inches of free conductor shall be left at each outlet box except where conductors are intended to loop without joints.

(k) When outdoor or under-chassis line-voltage wiring is exposed to moisture or physical damage, it shall be protected by rigid metal conduit. The conductors shall be suitable for wet locations. Electrical metallic tubing may be used when closely routed against frames, and equipment enclosures.

(l) The cables or conductors shall be Type NMC, TW, or equivalent.

(m) Outlet boxes of dimensions less than those required in Table 370-6(a) of the National Electrical Code (NFPA No. 70-1993) shall be permitted provided the box has been tested and approved for the purpose.

(n) Boxes, fittings, and cabinets shall be securely fastened in place, and shall be supported from a structural member of the home, either directly or by using a substantial brace. Snap-in type boxes provided with special wall or ceiling brackets that securely fasten boxes in walls or ceilings shall be permitted.

(o) Outlet boxes shall fit closely to openings in combustible walls and ceilings, and they shall be flush with such surfaces.

(p) Appliances having branch-circuit terminal connections which operate at temperatures higher than 60° C (140° F) shall have circuit conductors as de-

scribed in paragraphs (p) (1) and (2) of this section:

(1) Branch-circuit conductors having an insulation suitable for the temperature encountered shall be permitted to run directly to the appliance.

(2) Conductors having an insulation suitable for the temperature encountered shall be run from the appliance terminal connections to a readily accessible outlet box placed at least one foot from the appliance. These conductors shall be in a suitable raceway which shall extend for at least 4 feet.

(q) A substantial brace for securing a box, fitting or cabinet shall be as described in the National Electrical Code, NFPA 70-1993 Article 370-13(d), or the brace, including the fastening mechanism to attach the brace to the home structure, shall withstand a force of 60 lbs. applied to the brace at the intended point(s) of attachment for the box in a direction perpendicular to the surface in which the box is installed.

(r) Outlet boxes shall fit closely to the openings in combustible wall and ceilings with a maximum of a 1/4 inch gap. They shall be flush with the finish surface or project therefrom.

(s) Where the sheathing of NM cable has been cut or damaged and visual inspection reveals that the conductor and its insulation has not been damaged, it shall be permitted to repair the cable sheath with electrical tape which provides equivalent protection to the sheath.

[40 FR 58752, Dec. 18, 1975. Redesignated at 44 FR 26679, Apr. 8, 1979 and amended at 58 FR 55020, Oct. 25, 1993]

#### §3280.809 Grounding.

(a) *General.* Grounding of both electrical and nonelectrical metal parts in a manufactured home shall be through connection to a grounding bus in the manufactured home distribution panelboard. The grounding bus shall be grounded through the green-colored conductor in the supply cord or the feeder wiring to the service ground in the service-entrance equipment located adjacent to the manufactured home location. Neither the frame of the manufactured home nor the frame of any appliance shall be connected to the neutral conductor in the manufactured home.

(b) *Insulated neutral.* (1) The grounded circuit conductor (neutral) shall be insulated from the grounding conductors and from equipment enclosures and other grounded parts. The grounded (neutral) circuit terminals in the distribution panelboard and in ranges, clothes dryers, counter-mounted cooking units, and wall-mounted ovens shall be insulated from the equipment enclosure. Bonding screws, straps, or buses in the distribution panelboard or in appliances shall be removed and discarded. However, when service equipment is installed on the manufactured home, the neutral and the ground bus may be connected in the distribution panel.

(2) Connection of ranges and clothes dryers with 120/240 volt, 3-wire ratings shall be made with 4 conductor cord and 3 pole, 4-wire grounding type plugs, or by type AC metal clad conductors enclosed in flexible metal conduit. For 120 volt rated devices a 3-conductor cord and a 2-pole, 3-wire grounding type plug shall be permitted.

(c) *Equipment grounding means.* (1) The green-colored grounding wire in the supply cord or permanent feeder wiring shall be connected to the grounding bus in the distribution panelboard or disconnecting means.

(2) In the electrical system, all exposed metal parts, enclosures, frames, lamp fixture canopies, etc., shall be effectively bonded to the grounding terminal or enclosure of the distribution panelboard.

(3) Cord-connected appliances, such as washing machines, clothes dryers, refrigerators, and the electrical system of gas ranges, etc., shall be grounded by means of an approved cord with grounding conductor and grounding-type attachment plug.

(d) *Bonding of noncurrent-carrying metal parts.* (1) All exposed noncurrent-carrying metal parts that may become energized shall be effectively bonded to the grounding terminal or enclosure of the distribution panelboard. A bonding conductor shall be connected between each distribution panelboard and an accessible terminal on the chassis.

(2) Grounding terminals shall be of the solderless type and approved as pressure-terminal connectors recognized for the wire size used. Star wash-

ers or other approved paint-penetrating fitting shall be used to bond term to chassis or other coated areas. bonding conductor shall be solid stranded, insulated or bare and shs No. 8 copper minimum, or equal. bonding conductor shall be routed not to be exposed to physical dar Protection can be afforded by the figuration of the chassis.

(3) Metallic gas, water and pipes and metallic air-circulating shall be considered bonded if the connected to the terminal on the sis (see §3280.809) by clamps, sold connectors, or by suitable groun type straps.

(4) Any metallic roof and ext covering shall be considered how (1) the metal panels overlap on other and are securely attached t wood or metal frame parts by me fasteners, and (11) if the lower pa the metallic exterior covering i cured by metallic fasteners at a member of the chassis by two straps per manufactured home u section at opposite ends. The bo strap material shall be a minimu inches in width of material equi to the skin or a material of eq better electrical conductivity. straps shall be fastened with pain etrating fittings (such as screw star washers or equivalent).

[40 FR 58752, Dec. 18, 1975. Redesignate FR 26679, Apr. 8, 1979, and amended at 55020, Oct. 25, 1993]

#### §3280.810 Electrical testing.

(a) *Dielectric strength test.* The s of each manufactured home shs subjected to a 1-minute, 900 to 107 dielectric strength test (wit switches closed) between live par the manufactured home ground neutral and the manufactured ground. Alternatively, the test r performed at 1080 to 1260 volts for ond. This test shall be performed branch circuits are complete and fixtures or appliances are incl Fixtures or appliances which are shall not be required to withstar dielectric strength test.

(b) Each manufactured home sh subject to:

(1) A continuity test to assur metallic parts are properly bonde



**BEFORE THE PUBLIC SERVICE COMMISSION  
STATE OF MISSOURI**

Director of Manufactured Housing and  
Modular Units Program of the Public  
Service Commission,

Complainant,

v.

America's Home Brokers, Inc.,

Respondent.

Case No. MC-2005-0028

**AFFIDAVIT**

i paul Kittle, having been duly subscribed and sworn, according to

law states as follows:

1. My name is Paul Kittle, I am an employee of Freund

Investments.


2. At the direction of Todd Freund I went to the manufactured home located at

411 Daisy Lane Bellflower Mo. (Carol Gray)

3. On the 28 day of January, 2004, I ~~did~~ <sup>completed</sup> the following

repair and/or service work at that location:

I made the required rerairs to complete the Psc work order. I repaired items 4a, 4b, 4c, 4d 4e, 4f. upon leaving the owners friend that lives at the residence signed a work order for the completed work. I believe that they are happy satisfied with the work.

  
\_\_\_\_\_  
AFFLIANT

STATE OF MISSOURI )

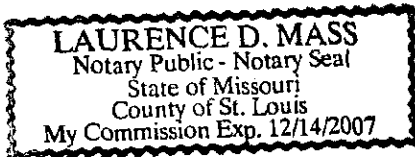
COUNTY OF St. Louis )

SS

Before me this 2nd day of February, 2005, appeared Paul Kittle, to me personally known who being duly sworn upon his/her oath stated that the matters set forth in his/her Affidavit above were true and correct based upon his/her own knowledge and did in my presence execute the foregoing affidavit.

  
NOTARY PUBLIC

My Commission Expires:



Count I - Gray - live in Companion signed



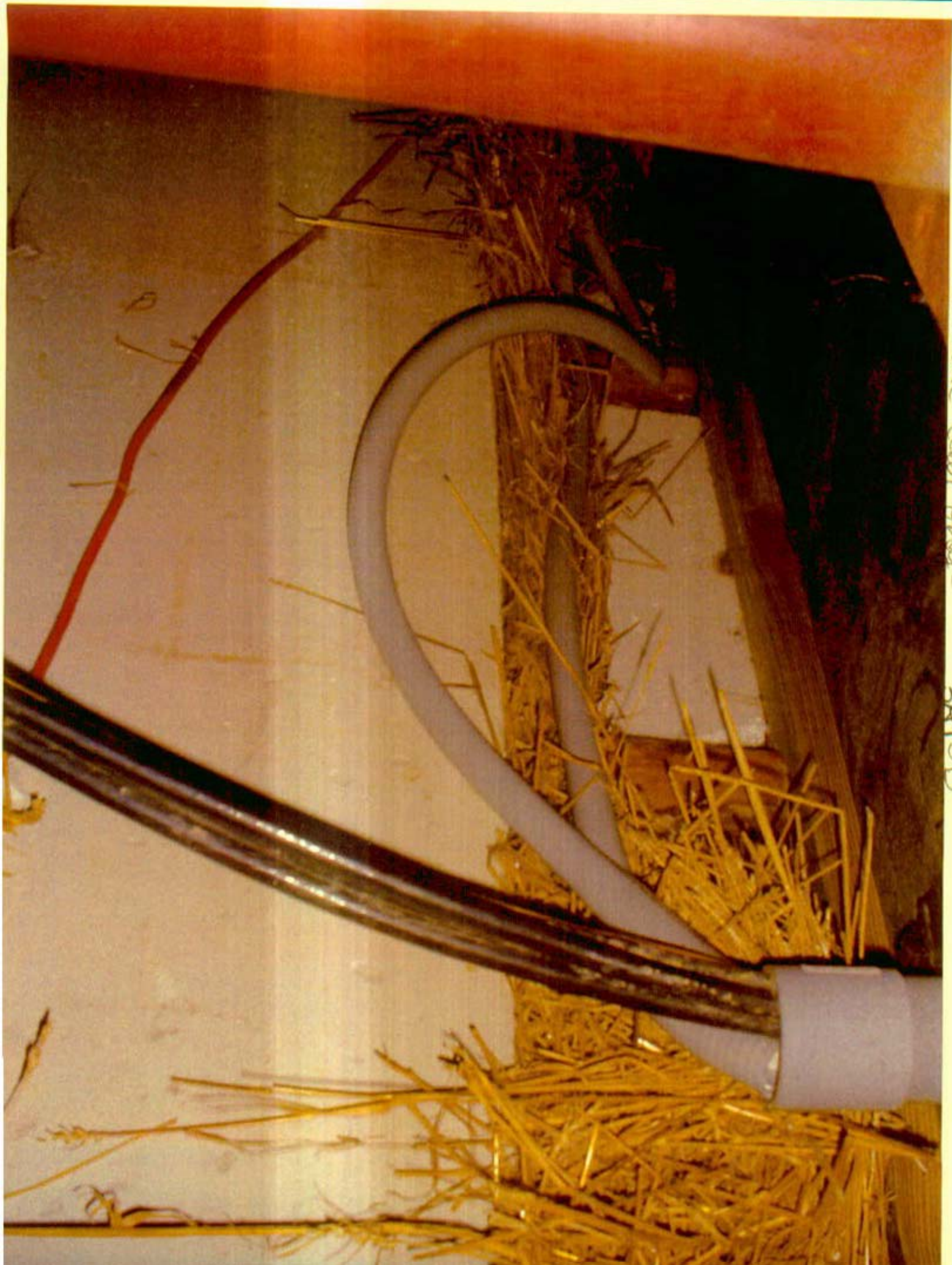
# Missouri Public Service Commission Consumer Complaint Work Order

Please fill the form out completely and legibly.

HOMEOWNER INFORMATION		OFFICE USE ONLY
Name	CAROL GRAY	Inspector
Address	411 Daisy Lane	Date Received
City/State/Zip	Bellflower Mo. 63333	Date Closed
Work Phone	Home Phone 573-929-3442	HOME INFORMATION
MANUFACTURER INFORMATION		Serial Number
Name	Cavalier	BC02AL0131841A/B
Address	P.O. Box 1388	HUD Label Number
City/State/Zip	HAMILTON AL.	NTA 1190050/51
DEALER INFORMATION		Date of Manufacture
Name	AMERICA'S HOME BROKERS	4-2-02
Address		Date of Sale
City/State/Zip		
Items Corrected From The Inspection Report	Comments	
1 Electric Cable A/C Line Not	INSTALL WIRE IN CONDUIT	
2 IN CONDUIT	& SECURE	
3	Repair	
4 CROSS OVER NOT SECURED	INSTALL <del>ALSO</del> CROSSOVER & SECURE	
5	WITH PLASTIC STRAP	
6 SEWER LINE NOT SUPPORTED		
7 EVERY 4' FOOT	SECURE EVERY 4' WITH PLASTIC	
8	STRAP	
9		
10 POST JACK NOT SECURED	WELD TO HOME ANCHOR TO CONCRETE	
11		
12 Bolt holes not sealed at	SEAL HOLES WITH PATCH AND SEALED	
13 Marriage line		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
Signature of Dealer:	<i>[Signature]</i>	Date: 1-28-2005
Signature of Homeowner (REQUIRED):	<i>[Signature]</i>	Date:
RETURN TO:		
Manufactured Housing & Modular Unit Program P.O. Box 360, Jefferson City, MO 65102		PHONE: 800-819-3180 FAX: 573-522-2509

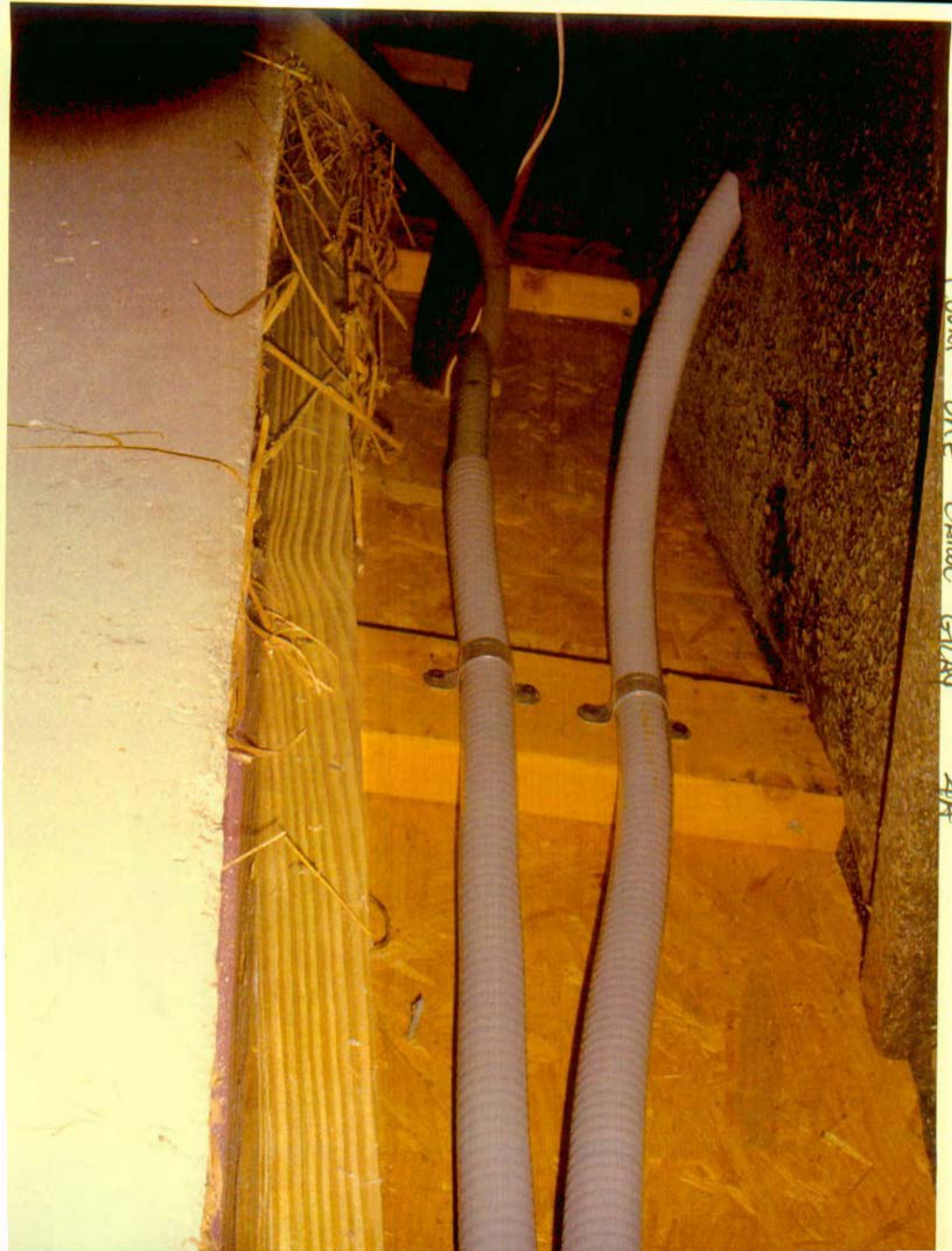
Countone (2001 6004 -

2413D)



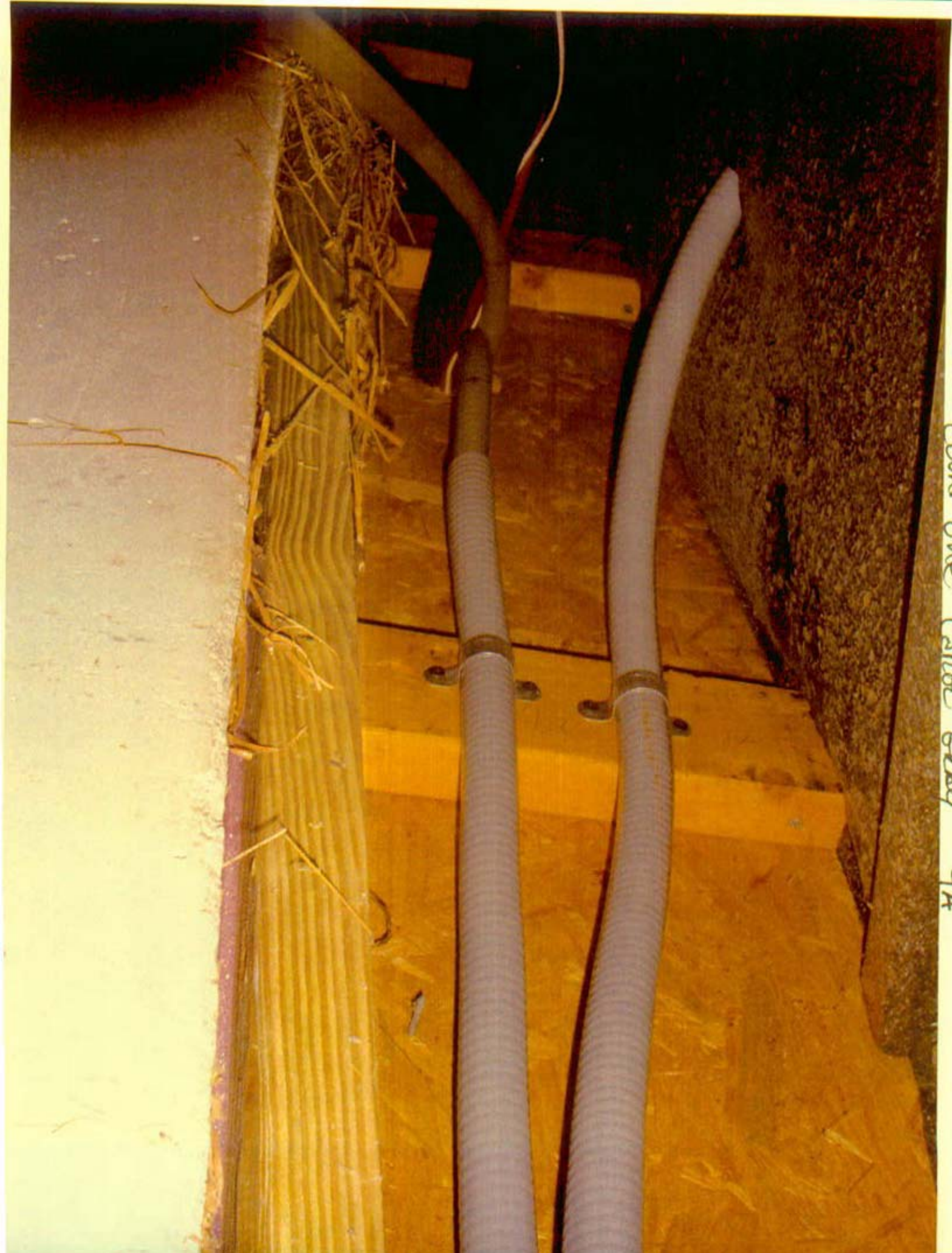


COUNT ONE CAROL GRAY 4A





Count One, Canal Gray 4A





(Quat one, cannot say

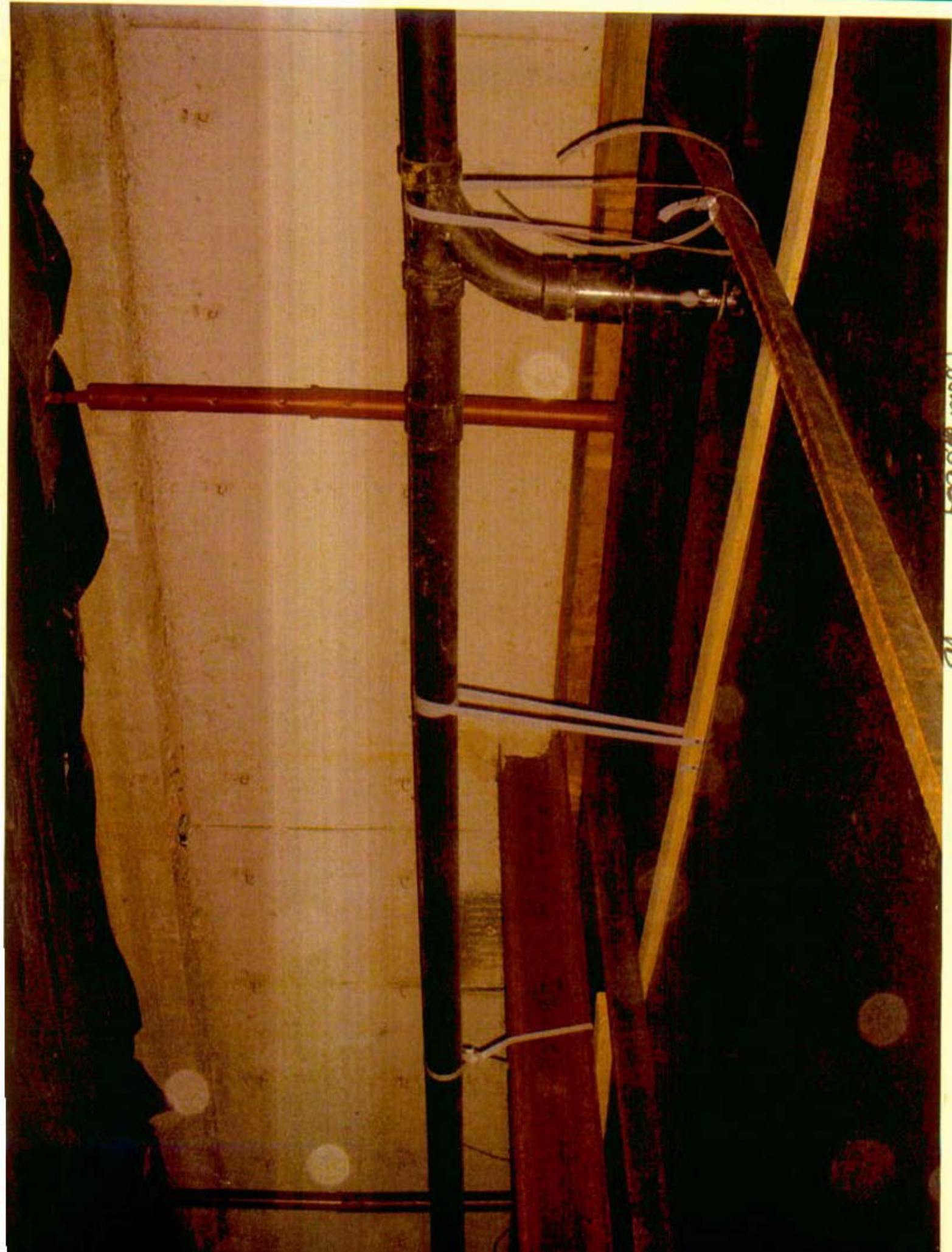
411





House of Grey

413





Count one Cacao Gully

4B & 4C





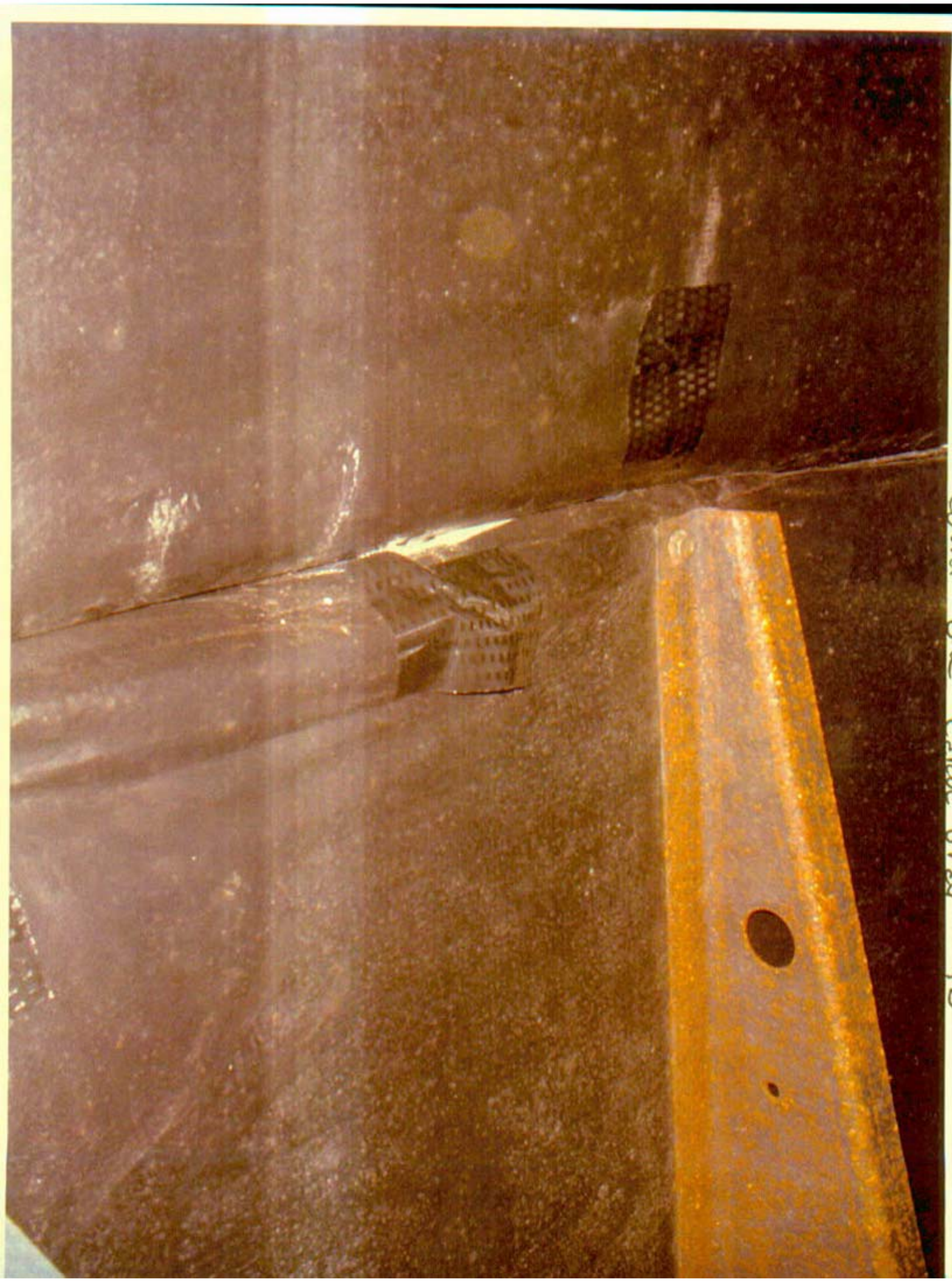
Count one (more) Gray

4C



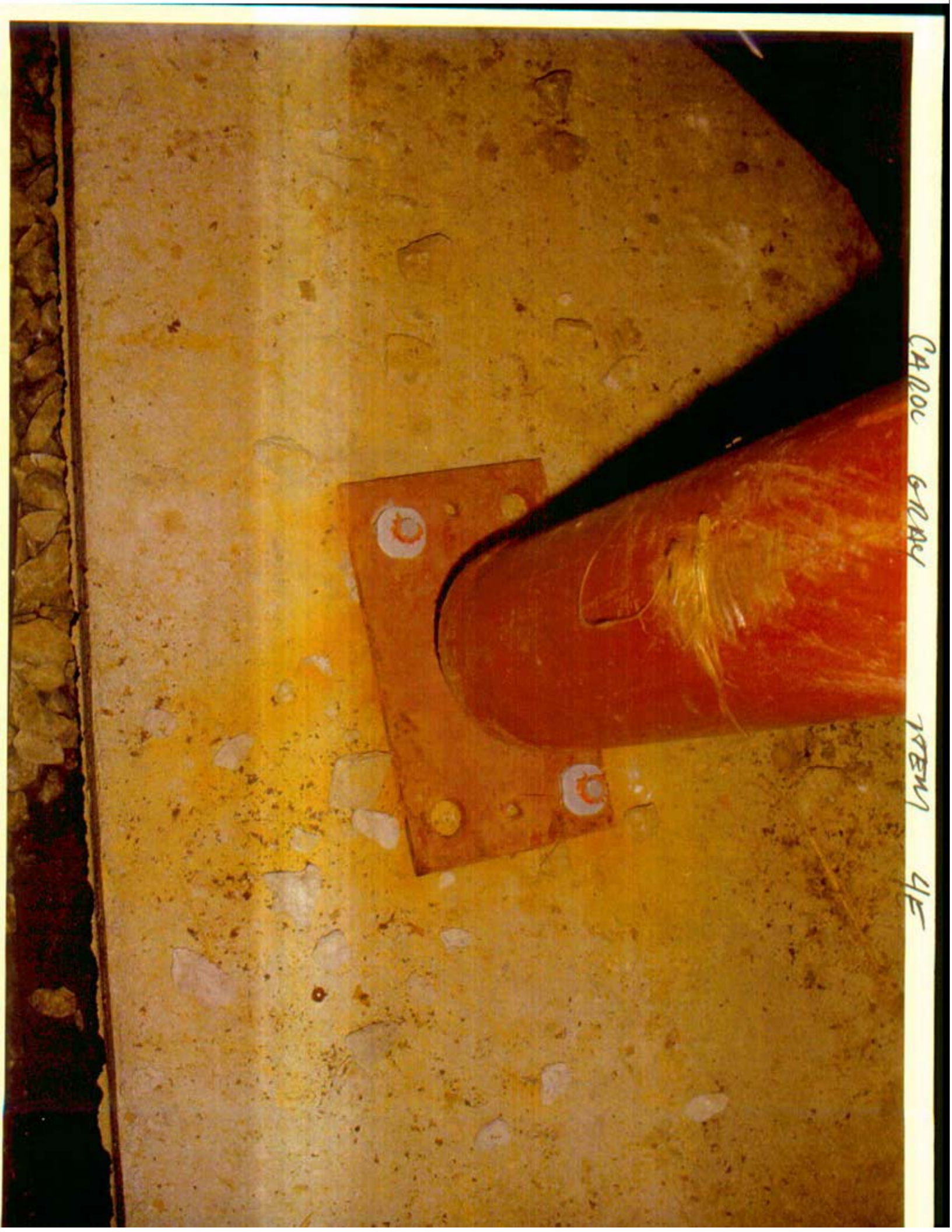


Count one Carrot Gray 4D





CHOC GRAY 1051 4E





CANOC GARY

4F

8

5



CANOC GRAY

4F





SEALED / ASSEMBLED BY CUSTOMER  
GROUND WIDE





## CONVERT-A-TUB®

10834 Galt Industrial Blvd. • St. Louis, MO 63132

March 1, 2005

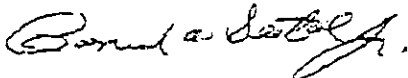
Missouri Public Service Commission

SUBJECTS: Carol Gray, Bellflower, Mo. And Linda Rochelle Sassman, Foley, Mo.

To Whom It May Concern,

Please be advised that the above persons had whirlpools installed by Convert-A-Tub at the request of America Home Brokers. The electrical service to these whirlpools were installed a second time by an electrician to conform to the specifications of the Owner's Manual provided by the Manufacturer of the motor/pump.

Sincerely,



Conrad W. Seibel, Jr.  
President

(314) 428-8097 • Fax (314) 428-8099 • 1-800-291-2882

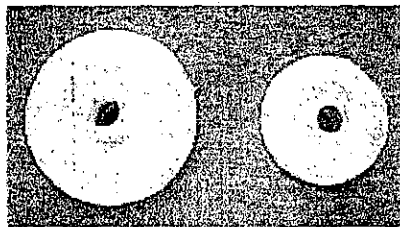
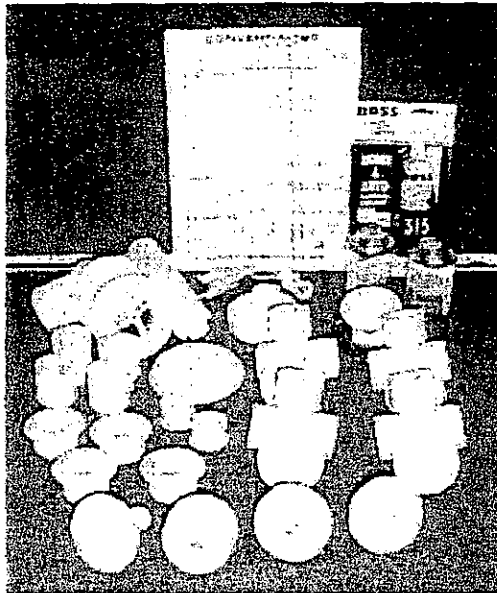
[www.convertatub.com](http://www.convertatub.com)



# **CONVERT-A-TUB™**

11/15/04/10/05

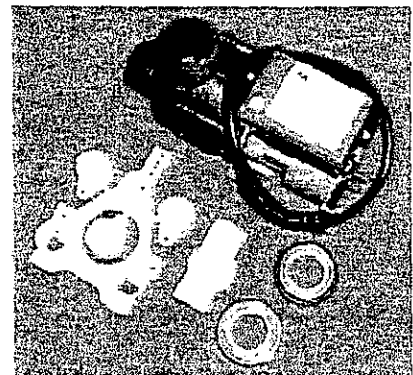
## About the Kit



Spa eyeball and Scalloped eyeball

Our kit includes everything t  
you need except the hole sav

- Whirlpool Jet Pump/Moto
- Venturis
- Jet Heads
- Double Check Valves (aerators)
- Jet Eyes
- Suction Head, Elbow and Cover
- Tools
- Hose (not pictured)
- Complete set of 1" and 1 1/2" Flex Hose
- On/Off Button and Air Hc
- Silicone, PVC Primer and Glue



Pump, adjustable stand ar  
unions

# **CONVERT-A-TUB™**



## ***FAQ Frequently Asked Questions***

**1. *Can the system be installed in my tub?***

Yes, this system can be installed in fiberglass, acrylic, plastic cultured marble, steel or cast iron tubs.

**2. *How long does it take to install?***

Approximately 4-6 hours.

**3. *How about the electric?***

The pump needs to have its own GFCI. You will need a 1: circuit/15 amps.

**4. *How many jets does it have?***

The kit comes with 4, 6 or 8 jets but all of our kits are customizable so you can have any number of jets.

**5. *Does my tub need to be removed?***

No, this system is retro-fitted into your existing bathtub. The parts are placed in the recesses of your tub. No mess remodeling is necessary!

**6. *Is there a choice of jets?***

Yes, we have several styles of jets and color choices.

**7. *How easy is it to install?***

We have both written instructions and a 31 minute instructional CD to help with installation. Do it yourselfers find it easy to install.

**8. *Is there a help line?***

Yes, call 1-800-291-2882 for installation assistance during regular weekday business hours.

**9. *How do I order a kit?***

Call 1-800-291-2882 and place your order. You will need us what material your tub is made of. We accept all major cards.

10. ***Are there any installers in my area?***

We install within a 90 mile radius of St. Louis, MO. We do installers in other areas. Contact us with your location.

11. ***How about a warranty?***

The plastic parts and the pump are guaranteed for 10 years VICO/Pentair.

[Home](#) |

| [Contact Us](#)

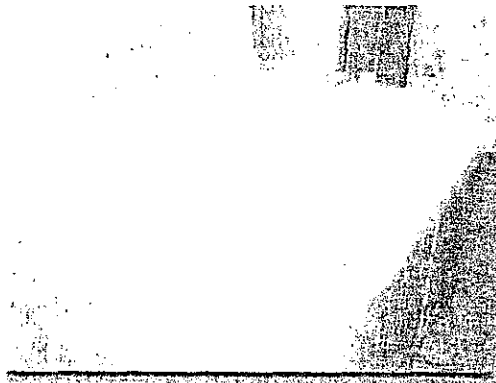
| [Privacy](#)

# **CONVERT-A-TUB™**

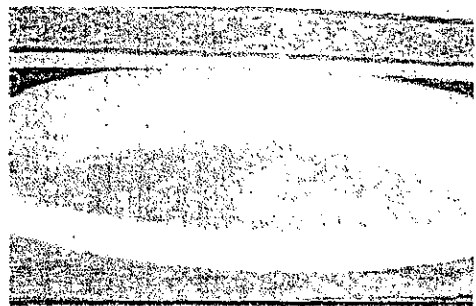
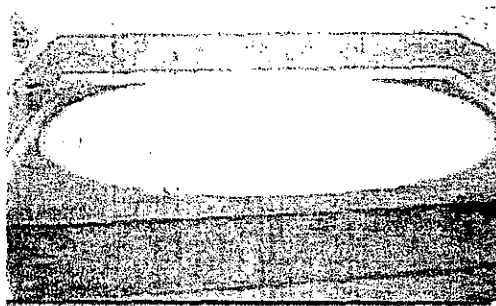
## **Picture Gallery**

### **Picture Gallery**

*Before*



*After*



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| [FAQ](#) |  
[Contact Us](#)

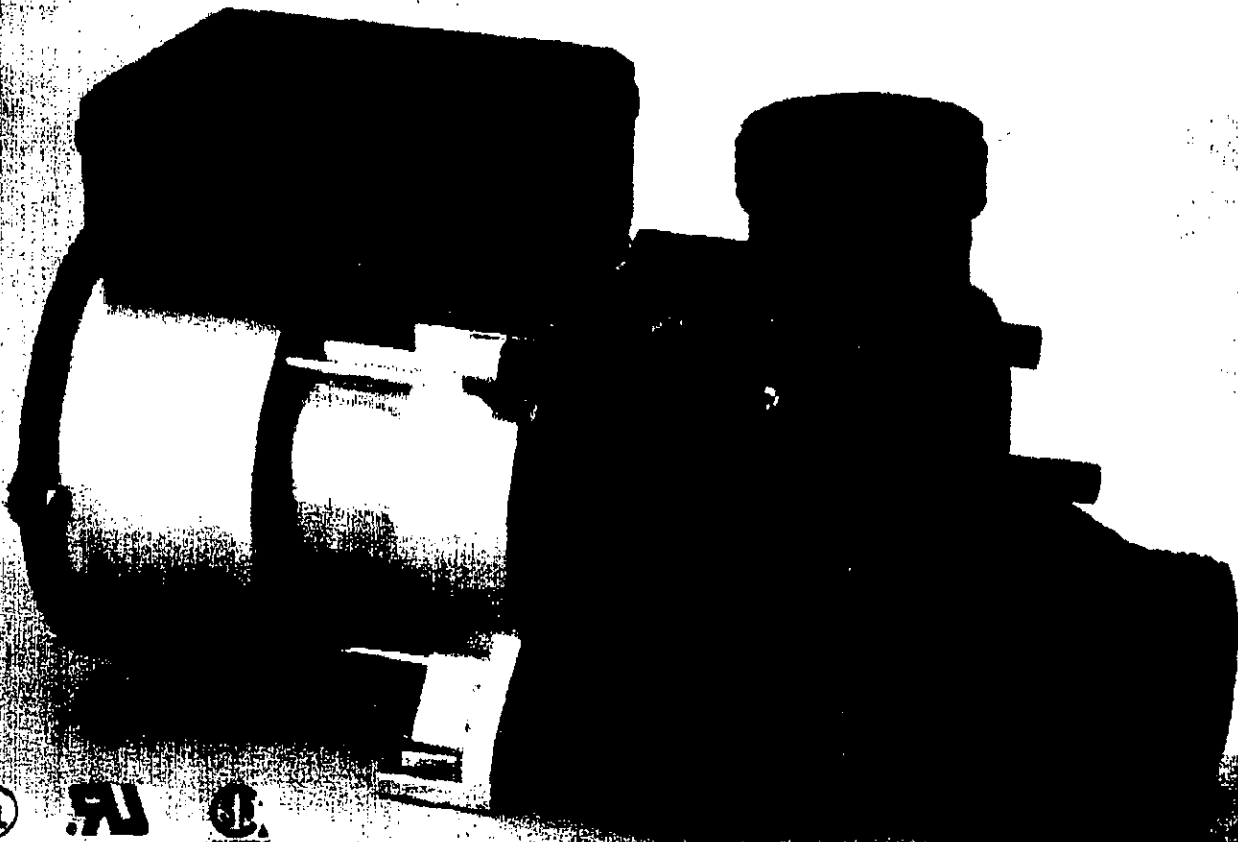
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**VICO**  
PRODUCTS MFG. CO.

# Owner's And Operator's Manual

**HIGH  
PERFORMANCE****PUMPS**

- AMAZING PERFORMANCE
- LOWER AMPERAGE DRAW
- WHISPER QUIET OPERATION
- LONGER WARRANTY
- RELIABLE OPERATION
- COMPACT DESIGN



## CONGRATULATIONS!

You are now the fortunate owner of a WOW! PUMP. This Whirlpool Operating Wonder has been carefully inspected and tested before shipment. It should give you long, efficient, trouble-free service. For maximum performance and reliability please follow the simple instructions in this manual.

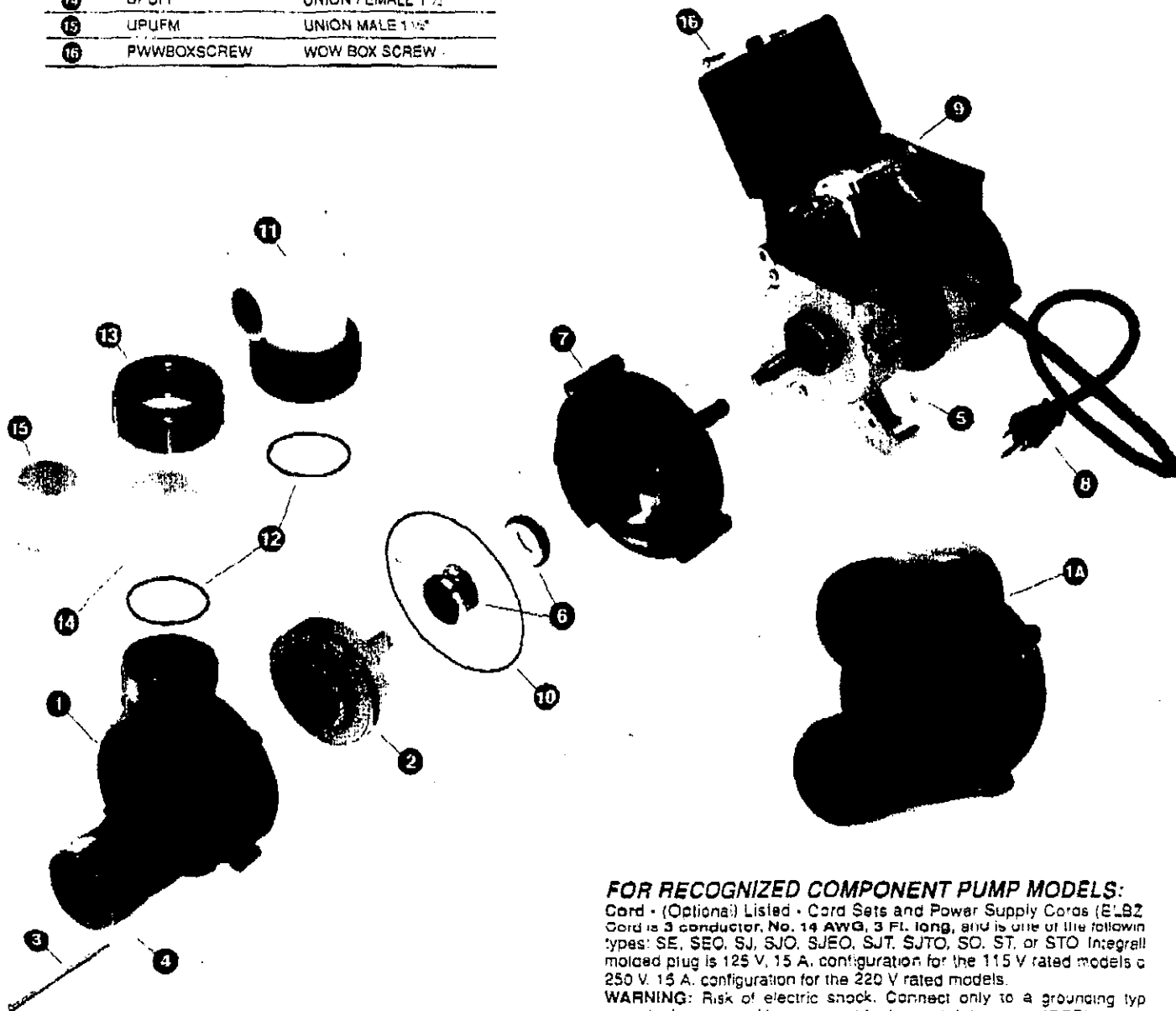
**VICO**a division of Sta-Rite Industries, Inc.

**VICO PRODUCTS MFG. CO., A DIVISION OF STA-RITE IND.**  
1808 POTRERO AVENUE • SOUTH EL MONTE, CALIFORNIA 91733  
(800) 262-2588 (626) 442-4420 FAX: (626) 448-1543

## WOW™ PUMP PARTS LIST

ITEM	PART NO.	DESCRIPTION
1	PPWWVF	WOW FRONT VOLUTE
2	PPWWIMP	WOW IMPELLER
3	PPWWBOLT	WOW THRU-BOLT
4	PPWWLKWSHR	WOW LOCK WASHER
5	PPWWNUT	WOW VOLUTE NUT
6	PPSFSEAL	WOW SEAL ASSEMBLY
7	PPWWVB	WOW VOLUTE BACK
8	PPWWCORD	WOW POWER CORD
9	MPASHU06	WOW AIRSWITCH
10	PPWWVO/R	WOW VOLUTE "O" RING
11	UNUFTTEE	UNION TEE 1 1/2" x 1" x 1"
12	UPUFO/R	UNION "O" RING
13	UPUFNUT	UNION NUT 1 1/2"
14	UPUFF	UNION FEMALE 1 1/2"
15	UPUFM	UNION MALE 1 1/2"
16	PWWBOXSCREW	WOW BOX SCREW

ITEM	PART NO.	DESCRIPTION
1A	PPUTVFFD	FRONT VOLUTE, FRONT DISCHARGE



### FOR RECOGNIZED COMPONENT PUMP MODELS:

Cord - (Optional) Listed - Cord Sets and Power Supply Cords (E1B2 Cord is 3 conductor, No. 14 AWG, 3 Ft. long, and is one of the following types: SE, SEO, SJ, SJO, SJE0, SJT, SJTO, SO, ST, or STO. Integral molded plug is 125 V, 15 A. configuration for the 115 V rated models or 250 V, 15 A. configuration for the 220 V rated models.

**WARNING:** Risk of electric shock. Connect only to a grounding type receptacle protected by a ground-fault circuit-interrupter (GFCI).

## **IMPORTANT SAFETY INSTRUCTIONS, READ AND FOLLOW ALL INSTRUCTIONS. SAVE THESE INSTRUCTIONS**

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

1. **READ AND FOLLOW ALL INSTRUCTIONS.**
2. **WARNING**--To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
3. For Cord and Plug Connected Units - **WARNING** - Risk of Electric Shock. Connect only to a grounding type receptacle protected by a ground-fault-circuit interrupter (GFCI). Contact a qualified electrician if you cannot verify that the receptacle is protected by a GFCI.
4. For Cord and Plug Connected Units - Do not bury cord. Locate cord to minimize abuse from lawn mowers, hedge trimmers, and other equipment.
5. For Cord and Plug Connected Units - **WARNING** - To reduce the risk of electric shock, replace damaged cord immediately.
6. For Cord and Plug Connected Units - **WARNING** - To reduce the risk of electric shock, do not use extension cord to connect unit to electric supply; provide a properly located outlet.
7. For Swimming Pool Pumps - **CAUTION** - This pump is for use with permanently installed pools and may also be used with hot tubs and spas if so marked. Do not use with storable pools. A permanently installed pool is constructed in or on the ground or in a building such that, it cannot be readily disassembled for storage. A storable pool is constructed so that it may readily be disassembled for storage and reassembled to its original integrity.
8. For Hot Tub and Spa Pumps - Do not install within an outer enclosure or beneath the skirt of a hot tub or spa unless so marked.
9. **WARNING - KNOW YOUR INSTALLATION AND APPLICATION** — Do not install this pump unless and until a thorough analysis has been made to assure that the Suction Fitting(s) used comply with minimum ASME/ANSI Suction Fitting Standards. Never allow hair or body parts to come too close to Suction Fittings.

### **CAUTION**

**To reduce the potential risk of fire, electrical shock, or injury to persons:**

1. All electrical wiring (both installation & repair) must be done by a licensed electrician and in accordance with local and state ordinances.
2. No modifications, additions or deletions should be made to the pump, without factory approval.
3. Before starting motor, fill tub with water to level recommended by whirlpool tub manufacturer; if not specified, fill tub to same level as top of pump. **Never run pump dry!**
4. Motors have a built-in automatic reset over load protector that guards against damage from mechanical or electrical problems such as low voltage, locked pump or similar abnormal conditions. Remember, if the timer device is still on, these motors will restart automatically - as soon as they cool down.
5. When servicing: **A.** Be sure power is off. **B.** Motors operate at high temperature - keep hands off motor to avoid burns.
6. Always re-install safety devices after installation or servicing of pump.
7. Do not relocate pump without prior approval from the factory.
8. For pumps used on swimming pools: If the pump is installed within 5 feet of the inside walls of a swimming pool, 8 AWG or larger conductors for grounding must be used.

### **WOW<sup>TM</sup> PUMP DISASSEMBLY**

1. To remove pump motor assembly disconnect electrical wires (be sure breaker is turned off) remove bolts holding pump in place and disconnect unions.
2. Remove nut and washer from front bolt, then remove the Volute front.
3. The Volute front will come off and expose the Impeller and "O" Ring. Remove "O" Ring, then remove impeller by inserting a screwdriver in the rear slot to prevent shaft from turning; then spin the impeller off counter-clockwise.
4. Remove seal assembly and slide off rotating seal member from impeller hub.
5. Remove Volute back from motor by removing four bolts through motor. Push stationary seal member out from rear of Volute back.

### **REASSEMBLY**

1. Install stationary seal member—lubricate rubber cup with clean water only. Push stationary seal member into seal plate cavity seating it firmly and squarely with finger pressure only.  
**NOTE: Do not use screwdriver or any tool which might damage ceramic seal member.**
2. Clean impeller hub; wet impeller shaft with clean water then slide rotating seal member on hub until case is against impeller face.
3. Secure volute bracket to motor.
4. Screw impeller on shaft, hand tight.
5. Insert "O" Ring.
6. Align bolt holes on volute front with those on volute bracket.
7. Install bolts. Be sure they are gripping the volute bracket and the volute front. Tighten all bolts.

# WOW!<sup>TM</sup> PUMP

## TROUBLE-SHOOTING GUIDE

SYMPTOMS	PROBABLE CAUSES	RECOMMENDED ACTION
Pump will not turn on.	No power to motor.	Check switch and fuse or breaker.
Pump runs slow.	Pump not wired same as voltage supplied.	Change pump to correct voltage.
Pump Humms.	Something stuck in impeller.	Take pump apart and clean impeller.
	Wire not tight.	Check terminals.
Pump Humms but will not turn.	Pump jammed.	Remove dust cap and rotate motor shaft with screwdriver. If unable to turn, send in for repair.
Noisy pump.	Something in pump.	Take pump apart and remove debris.
	Bad bearing.	Replace bearing.
Pump leaks.	Hose clamps or union loose.	Tighten.
	Bolts holding tank loose.	Tighten.
	Leak around shaft from worn seal.	Replace shaft seal.
	Pump creeps.	Secure pump to floor.
Pump cavitates.	Air from jets getting in suction.	Direct directional flow fitting away from suction fitting.
Pump runs but no jet action.	Air lock	Turn pump on, wait 10 seconds. Turn pump off. Repeat up to 10 times. If airlock is not cured, call your whirlpool manufacturer.

## INSTALLATION

1. Minimum 16" x 14" access panel must be installed for installation and future servicing of pump.
2. Pump must be installed below the water level to prime; yet high enough to drain back into tub as tub drains.
3. Leg height of plastic pump stand not to exceed 6".
4. The recommended motor wire size for each horsepower rating is as follows:

115 VOLTS				230 VOLTS		
HP	50 Ft.	100 Ft.	150 Ft.	50 Ft.	100 Ft.	150 Ft.
1/2	14	12	10	14	14	14
3/4	14	12	10	14	14	14
1	14	10	8	14	14	12
1 1/2	10	10	8	14	14	12

5. The motor must be wired for the proper voltage and phase. The wiring diagram voltage, ampere draw and cycles are shown on the motor nameplate or under the terminal board cover on opposite end of the motor. All threaded shaft motors are fixed rotation.
6. Addendum for pumps used on swimming pools: If the pump is installed within 5 feet of the inside walls of a swimming pool, 8 AWG or larger conductors for grounding must be used.