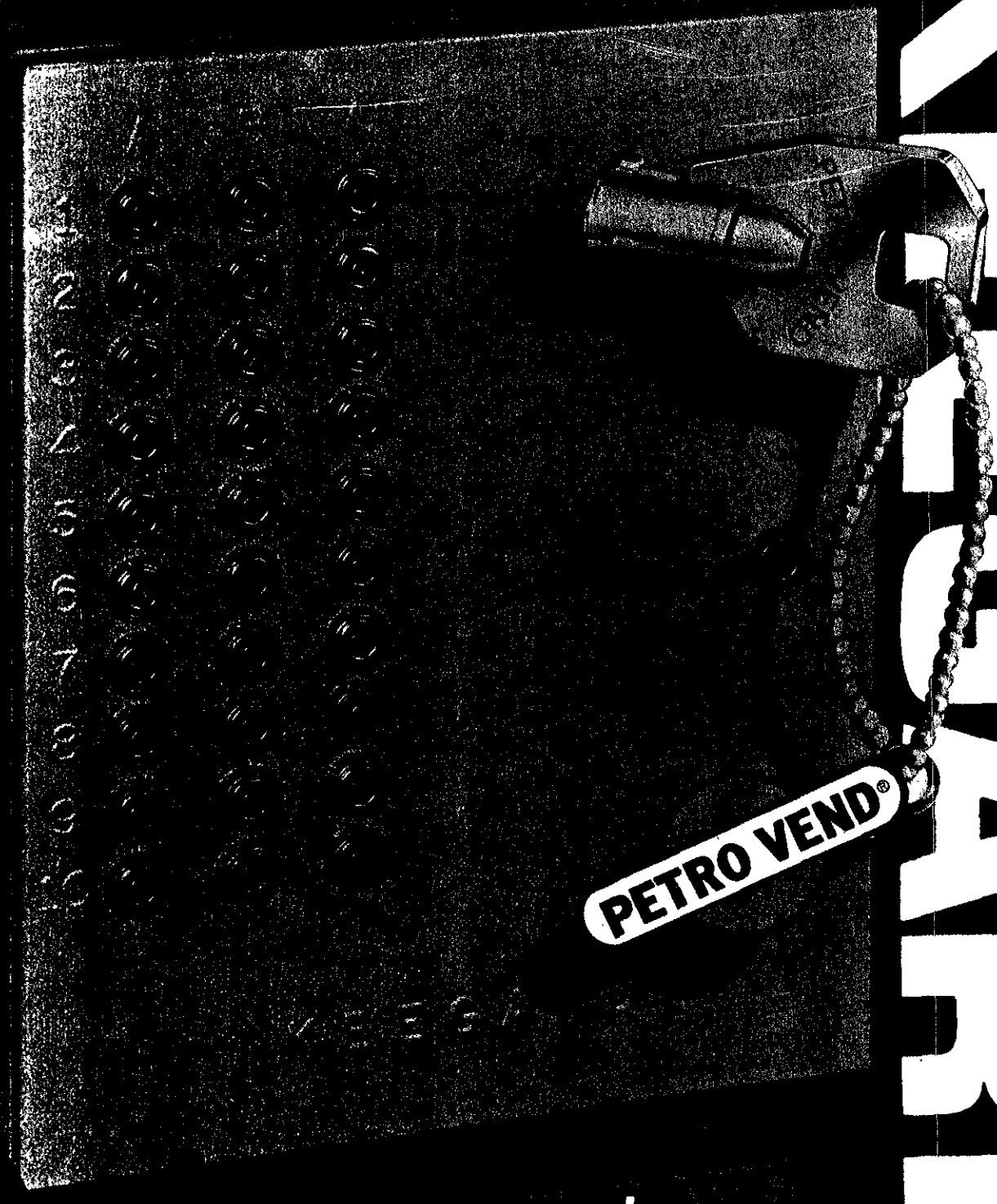
KEYCARD

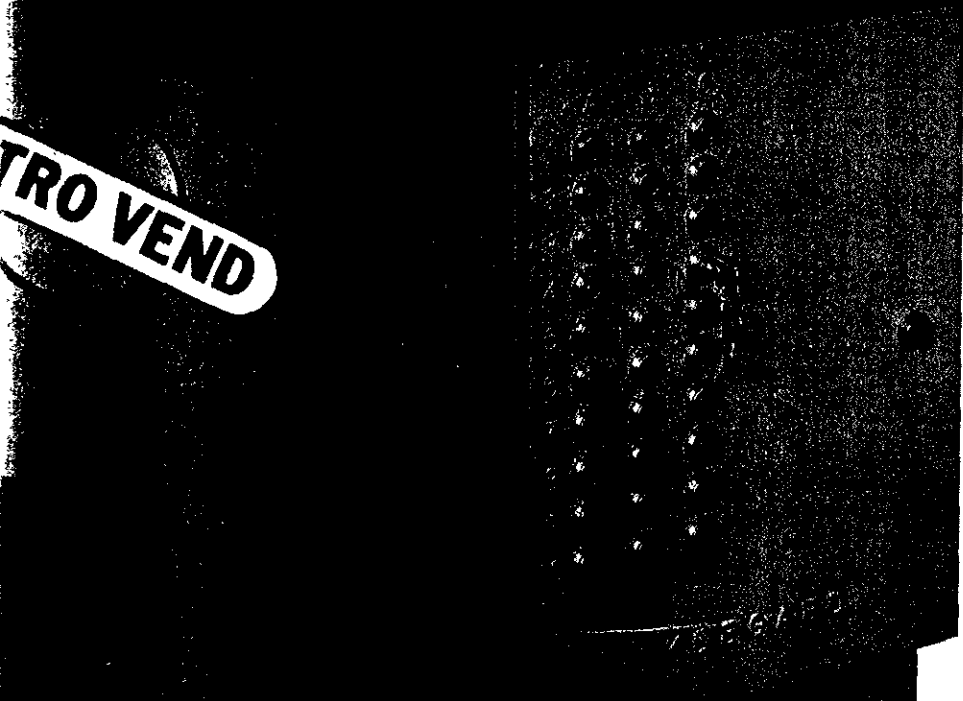


automated
fueling control
system

KEEGARD®

YOUR KEY TO . . .

- Maximum security
- Accountability
- Time and fuel savings
- 24 hour unattended service
- Reduced clerical time and hours



KEEGARD SYSTEM

A KEEGARD system is a highly engineered, solid state, automated, fuel control system, providing maximum security and accountability of your motor fuel. It is the highest quality and least expensive electronic concept of any key system existing today. By means of this system, a fuel dispenser is activated by a high security, registered, individual key.

EASY TO USE

Each key has its own counter, and every gallon withdrawn is recorded within increments of one tenth of a gallon on keyholder's own counter. Unlimited number of keys are available per system.

THE FUTURE IS NOW WITH...

PETRO VEND Incor

EASY TO INSTALL

Installation is flexible and simple. The KEEGARD unit may be mounted anywhere, in close proximity of the pump, or it may be mounted remotely. KEEGARD is adaptable to any existing standard or commercial fuel dispenser, new or used. All PETRO VEND control systems are designed for existing pumps.

THERE IS NO NEED TO BUY
A NEW PUMP

ASSURES ACCURACY

Provides 24 Hour unattended service with absolute assurance of an accurate recording of every drop taken.

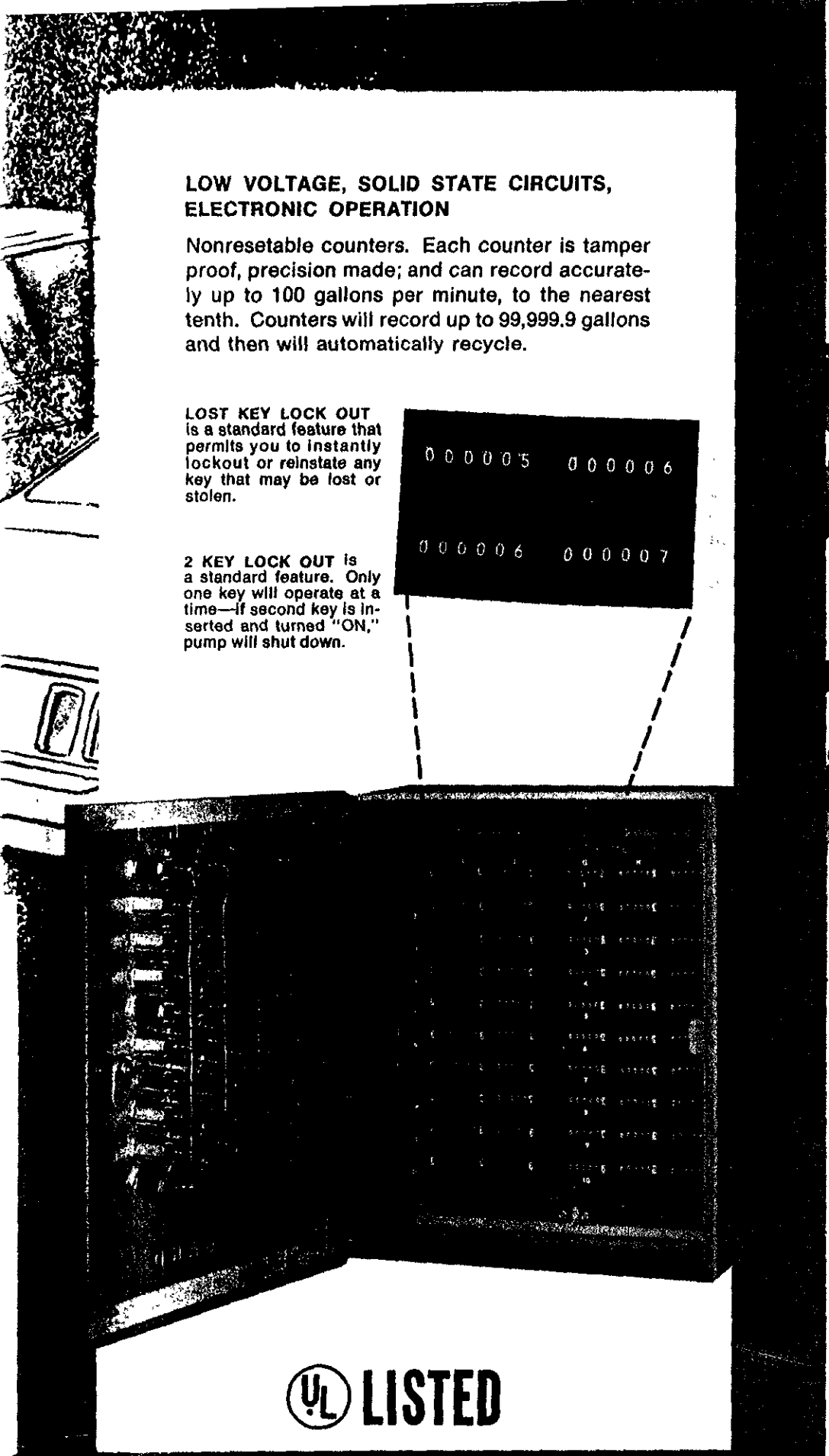
porated 9128 W. 47th Street • Broo

LOW VOLTAGE, SOLID STATE CIRCUITS, ELECTRONIC OPERATION

Nonresetable counters. Each counter is tamper proof, precision made; and can record accurately up to 100 gallons per minute, to the nearest tenth. Counters will record up to 99,999.9 gallons and then will automatically recycle.

LOST KEY LOCK OUT is a standard feature that permits you to instantly lockout or reinstate any key that may be lost or stolen.

2 KEY LOCK OUT is a standard feature. Only one key will operate at a time—if second key is inserted and turned "ON," pump will shut down.



UL LISTED

eet • Brookfield, Illinois 60513 • (312) 485-4200

The KEEGARD SYSTEM will dramatically provide...

- A drastic reduction in employee exposure to improper fuel use, pilferage and clerical time.
- Better cost determination of operating expenses.
- Maximum accountability of fuel.
- 24 Hour unattended service.
- The end of transcription errors, illegible or lost fuel tickets.
- Proper proration of operating costs.
- Automatic information maintenance of your inventory status.

The number of keys you may have in a single system is unlimited. The master enclosure may contain up to 30 keys and counters. A slave enclosure will hold up to an additional 60 keys and counters.

AVAILABLE OPTIONS

Automatic Inventory Status Control, a resetable totalizer designed to allow the owner to control fuel inventory or daily or weekly usage.

Buzzer System, designed to alert keyholder that he has left his key in the unit, after he has finished fueling.

Visibility Counter Panels, allow external visibility of the counters.

IDEAL FOR

Municipalities	Taxi Companies
Fleetowners	Bulk Plants
Dairies	Rural Co-ops
Bakeries	Key Clubs
Laundries	Apartment Complexes
Marinas	Industrial Complexes
Lumber Yards	Employee Benefits
Trucking Firms	Bus Fleets
Railroads	Construction Companies
Brokers	Leasing Companies

PETRO VEND

9128 W. 47th Street · Brookfield, Illinois 60513 · 312/485-4200

KEEGARD SPECIFICATIONS

DIMENSIONS	Width 9", Height 15", Depth 6"
POWER REQUIREMENTS	115 Volts (105-126) 60 Cycle Single Phase
BOX	Explosion Proof Specifications for Class I Group D Box
WEIGHT	30 Key System approximately 40 lbs.
COUNTERS	Non-reset type 99,999.9 - Capacity at 1500 pulses PM to read 100 GPM

PORTLAND
6125 NE Portland Hwy.
P.O. Box 13441
Portland, OR 97213
(503) 284-5505

SEATTLE
[illegible] Aurora West
P.O. Box 9039
Seattle, WA 98119
(206) 281-5050

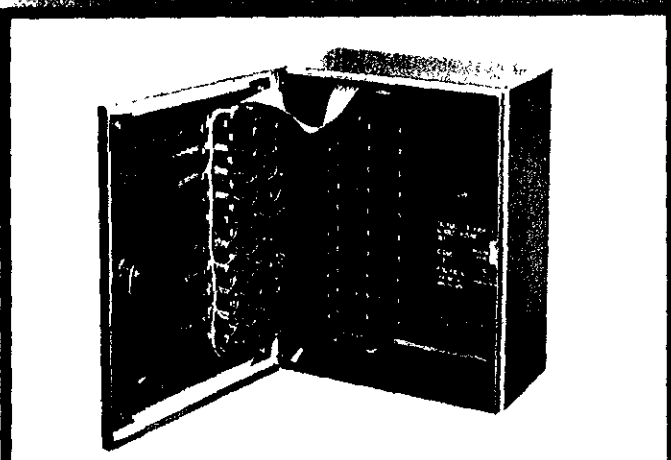
TOLL FREE:
Washington (800) [illegible]
Oregon (800) 452-7537
All Other States (800) [illegible]

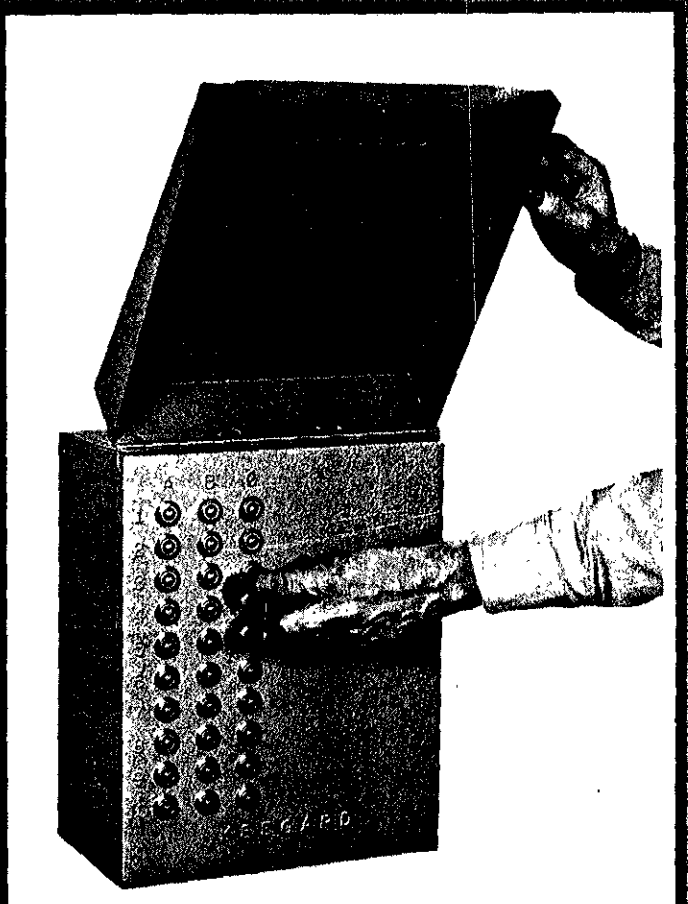
Patent Pending

MEMBER PEI

Form No. 10080-81

Printed in U.S.A.





Operation

Operation of the KEEGARD system is simple - just insert a key into its proper lock, and turn. This will activate the fuel pump and control system. As the fuel is released, the counters record every tenth of a gallon or liter taken. To de-activate the pump, simply hang up the fuel nozzle or turn the key back to the off position and remove.

Accuracy

The KEEGARD counting system is made up of non-resetable counters. Each counter is tamper-proof, precision made, and accurately records up to 100 gallons or liters per minute, to the nearest tenth. The counters record up to 99,999.9 gallons or liters, and then automatically reset. This system provides 24-hour unattended service, with absolute assurance of a precise recording.

Installation

Installation is flexible and simple. The KEEGARD unit may be mounted, either in close proximity of the pump, or mounted remotely. KEEGARD is adaptable to most existing standard or commercial fuel dispensers, new or used. There is no need to buy a new pump.

Features

VIRTUALLY UNLIMITED NUMBER of locks per system.

LOST KEY LOCK OUT is a standard feature that permits you to instantly lock out or reinstate any key that may be lost or stolen.

2 KEY LOCK OUT is also a standard feature. Only one key will operate at a time. If a second key is inserted and turned, the pump will shut down.

TURN ON DELAY delays the starting of the pump after the key is turned on to eliminate "milking" of product.

MISSING PULSE DETECTOR is designed to shut the pump off if no pulse is detected.

Options

Automatic Inventory Status Control, a resetable totalizer designed to allow the owner to control fuel inventory by daily or weekly usage.

Buzzer System, designed to alert keyholder that he has left his key in the unit after he has finished fueling.

Heater, a UL approved heater for use in cold climates.

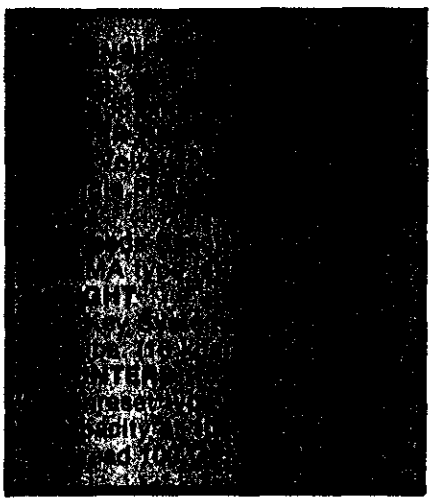
Visible Counters, a visibility panel that allows the user to verify his gallonage.

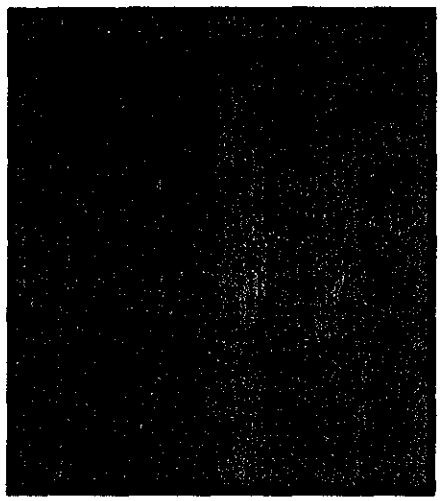
Weather Shield, protects the unit during inclement weather.

Patents Pending

PETRO VEND, INC.
9128 W. 47th Street
Brookfield, IL 60513 U.S.A. TELEX 27-0040
312/485-4200 TWX 910-691-2184

Specifications





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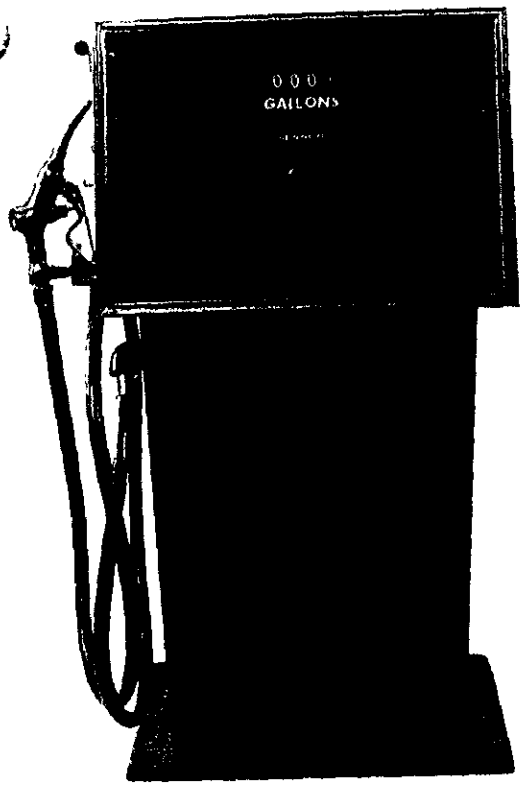
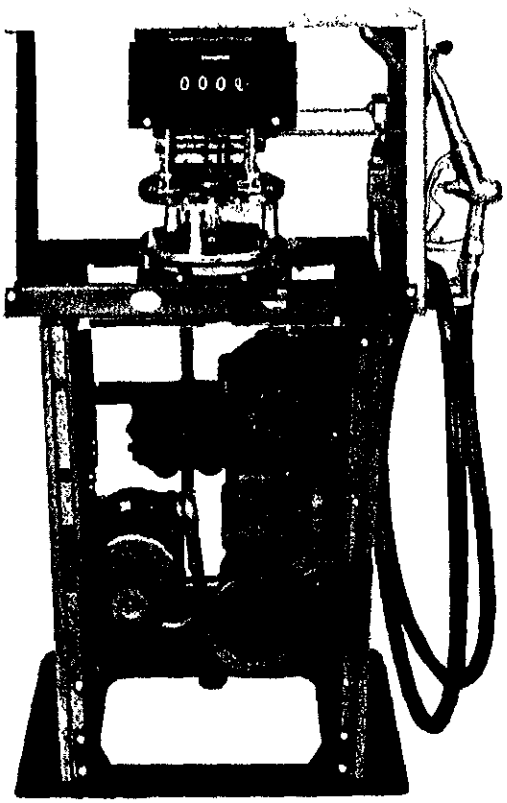


Model 3782
Single Remote Dispenser



Models 3788 / 3789
Single Self-Contained Dispensers

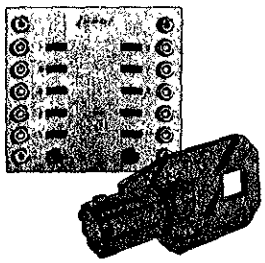
To Meet Specific Needs

TICKET PRINTER

Two types of built-in ticket printers are available. The "accumulative" printer records the previously accumulated total gallonage on the ticket when ticket is inserted before delivery begins. After delivery is completed, the new accumulated total is imprinted. The difference between the two readings is the number of gallons delivered.

The "zero start" printer records zero gallons upon insertion of ticket before delivery. After completion of delivery, the number of gallons delivered is printed on ticket.

KEY OPERATION



Bennett Key-Op System for Fleetmaster dispensers permit fuel withdrawals by keyholders only, and registers exact gallons delivered to individual keys. This takes the guesswork out of driver fueling by eliminating uncontrolled deliveries and incomplete records. It provides easy, 'round the clock fuel dispensing and an accurate record of each driver's usage.

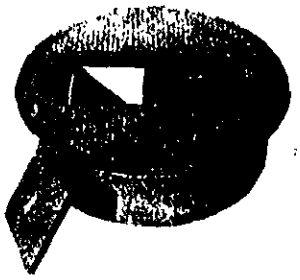
Control panel offers a choice of 6, 10, 20, 30, 40, 50, or 60 key units. Keys are a special design with unusual contours virtually impossible to duplicate. Key operation systems are available on Fleetmaster single model dispensers only, with or without ticket printer.

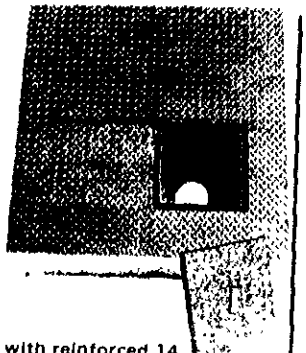
REMOTE MONITORING

The Bennett Model 81 M console provides control of several self-serve fueling points and gives accurate, one-point record keeping of gallons dispensed.

The only requirement necessary for interfacing the Model 81 M with a Fleetmaster dispenser is an electric reset and a gallon pulser.

An optional add-on feature is a Receipt Printer that interfaces with the 81 M Console. The printer provides a dated, numbered receipt for each transaction and a hard-copy printout for gallon totals by hose. Convenient plug-in design allows printer to be added at any time for the cost of the printer only.





Boxes

xT: 36" x 36" x 15" — 14 gauge galvanized with reinforced 14

ast iron 40-1/2" diameter with 4-5/8" rebar support holes and 2"

d sheet metal.
vith 2-1/2" x 13" fill covers, reinforced with withstand tanker

es for easy removal.
Y: Spring-loaded with high nitrile rubber disc.
gn, low swell high nitrile rubber with stainless steel worm lamp.
pon request.

pon request.
MAXIMUM 16" ℄.

vill-not allow dirt or water to enter the containment area.
pe while the fill cover is on.
covers.
inment and poppet valve for two riser systems.
ground, not into the containment area.
bly with pull chain to allow fluid to drain through a full 5/8"

a downward position at all times allowing for a rapid flow.
et allows replacement from inside the containment area.
s for complete freedom of movement, either side to side, or up
e to pipe riser or tank.
e with welded pipe nipple and a 90° swing flair fitting.

re water tight.
pipe plug and up to 40 gallon containment.

escription

" Round Fil-Spil Containment Box: 2 Riser System (10 gallon)
" Square Fil-Spil Containment Box: 2 Riser System (10 gallon)

HT SEAL KIT
HT SEAL KIT

s Must Be Ordered with CN239 or CN232 (No Additional Cost)

ATION LY) NG	CN263	14 CENTERS. BUNG TO BUNG
	CN264	16 CENTERS BUNG TO BUNG

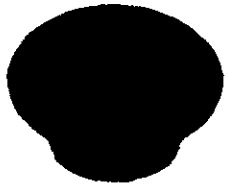
ien Required

O TO	TANK GAUGE COVER-USED WITH TWO RISER SYSTEM AND THIRD OPENING NEEDED TO READ GAUGE
D TO	
D TO TWO GALLON	LESS CONTAINMENT-USED WHEN CONTAINMENT IS NOT NEEDED
O TO TWO GALLON	WATER DRAIN-USED WHEN ABOVE GRADE WATER NEEDS TO BE DIRECTED AWAY FROM THE TANK AREA
ITH PART	PIPE PLUG USED WHEN PLUG IS NEEDED INSTEAD OF POPPET VALVE.
	3" DONUT ALLOWS USE OF A 3" RISER
	2" DONUT ALLOWS USE OF A 2" RISER

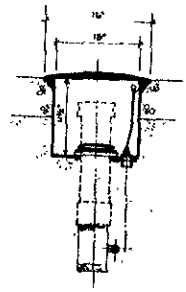
CN276
CN277
CN278
CN279
CN280
CN281

ght, yet strong
weight
ot reinforced
bottom
ver

e eter	Overall Height
"	12"
"	12"
"	12"



Also available with gaskets, reinforced cover, pull handle, etc. Please inquire.



Fil-Spil Containment Box

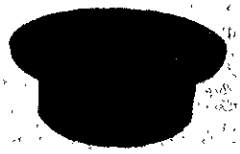
Features:

- Special design on cover will not allow dirt or water to enter the containment area.
- Allows for vapors to escape while the fill cover is on.
- Flush mount lift ring on covers.
- Spring-loaded valve assembly with pull chain to allow the fluid to drain through 1" pipe outlet without getting your hands wet.
- Tube flanged, low swell rubber gasket allows replacement from within the containment area.
- Flange type gasket allows for complete freedom of movement, either side to side, or up and down, without damage to pipe riser or tank.

Specifications:

Containment Box: One piece sand-cast aluminum
Cover with Handle: One piece sand-cast aluminum.
Finish: Heavy duty epoxy coating.
Poppet Valve Assembly: Spring-loaded, with high nitrile rubber disc.
Gasket: Tube flange design, low swell high nitrile rubber.
Gasket: Viton available upon request

Model	Description
CN200	Containment box with poppet valve and hose
CN201	Containment box with pipe plug
CN202	Water tight with no containment access.
CN203	Liquid tight seal kit



Monitoring Well and Tank Gauge Box

Features:

- Model 209 has full 13" I.D. working area
- Model 208 has full 9" I.D. working area
- 4" wide drop down lift handle
- Outer ring with threads
- Cover with threads
- Machine mating areas for good contact sealing on gasket.
- Special spanner wrench for installation
- Choice of "Monitoring Well" or "Tank Gauge" lettering on cover.
- Brass tag available for outer ring

Specifications:

Ring: Cast Iron — 13" O.D.
Cover: Cast Iron — 10½" O.D.
Standard Depth: Cast Iron — 3"
Added Skirt: 16 gauge sheet steel

Model	Description
CN208-3MW	9" I.D. Monitor Well, 3" depth
CN208-8MW	9" I.D. Monitor Well, 8" depth
CN208-12MW	9" I.D. Monitor Well, 12" depth
CN208-3TG	9" I.D. Tank Gauge, 3" depth
CN208-8TG	9" I.D. Tank Gauge, 8" depth
CN208-12TG	9" I.D. Tank Gauge, 12" depth
CN209-3MW	13" I.D. Monitor Well, 3" depth
CN209-8MW	13" I.D. Monitor Well, 8" depth
CN209-12MW	13" I.D. Monitor Well, 12" depth
CN209-3TG	13" I.D. Tank Gauge, 3" depth
CN209-8TG	13" I.D. Tank Gauge, 8" depth
CN209-12TG	13" I.D. Tank Gauge, 12" depth
CN207	Spanner Wrench

PETROMETER SERIES 20 DOUBLE CONTAINMENT TANK LEAK ALARM:

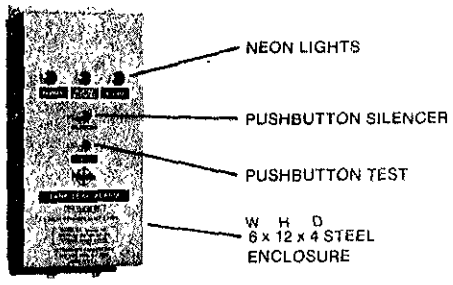
DESCRIPTION: The Tank Leak Alarm System consists of the following:

1. **THE MODEL 20 TYPE T ALARM UNIT:** Consists of a pressure switch, 3 status lights (Green — Normal/ Power On, Red — Alarm, Amber — Alarm Silenced), buzzer, relay, pushbutton silencer switch, pushbutton alarm test switch and printed circuit to perform the alarm functions.

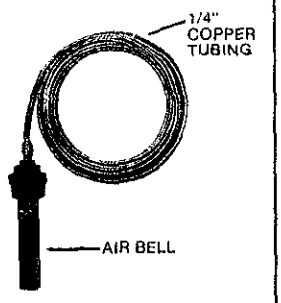
2. **THE MODEL 21 TANK ASSEMBLY UNIT:** Consists of a one piece coil of 1/4" O.D. copper tubing with a brass air bell and a 2" x 1-1/2" IPS double tapped tank top bushing with brass locking fitting. A 1-1/2" IPS schedule 40 reinforcer pipe, supplied by the installer, is required to hold the air bell rigidly in place at the bottom of the double containment tank unless some other means of support is provided for the air bell.

IMPORTANT: For double containment tanks not 100% vented to atmosphere a Model 22 Equalizing Unit is also required.

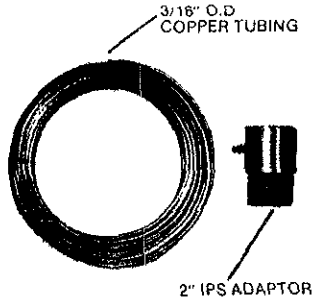
3. **THE MODEL 22 EQUALIZING UNIT:** Required only for double containment tanks that are not 100% vented to atmopshere. Consists of a one piece coil of 3/16" O.D. copper tubing, a 2" IPS nipple/pipe coupling adaptor and 3/16" tube fittings.



MODEL 20
TANK LEAK ALARM UNIT

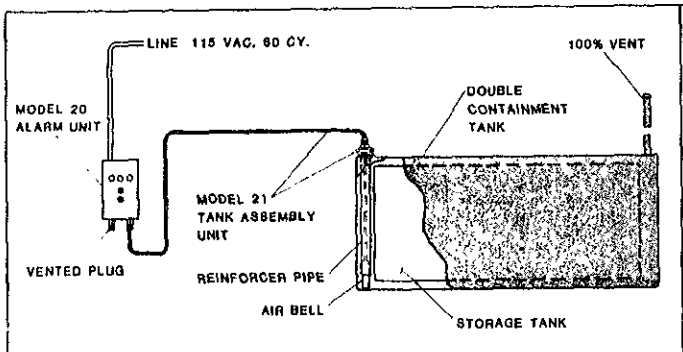


MODEL 21
TANK ASSEMBLY UNIT

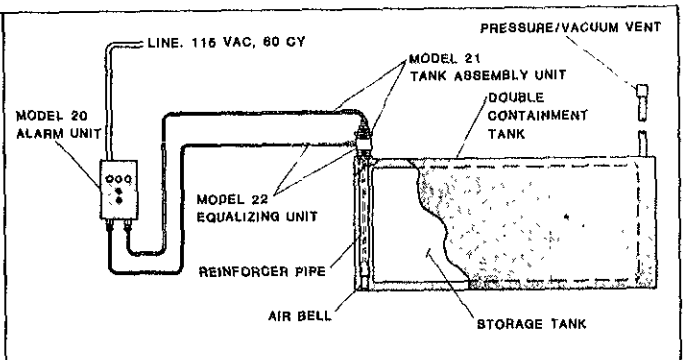


MODEL 22
EQUALIZING UNIT

OPERATION: The Tank Leak Alarm System is fully automatic and need only be connected to a power source. The system operates on the principles of hydrostatics using the Tank Assembly Unit Air Bell as the sensing device. A leak in the storage tank will start flooding the double containment tank with the stored liquid, immersing the air bell in tank liquid. This causes an increase in pressure of the trapped air within the air bell and interconnecting 1/4" copper tubing that activates a switching element, within the Model 20 tank leak alarm unit, to sound alarm. In factory tests using 50' of tubing and water a 3/8" immersion, above the air bell openings, sounded the alarm. The audible alarm is silenced by a pushbutton silencing circuit and automatically resets when the double containment tank is pumped out. An alarm test pushbutton permits verification that the alarm circuit is functioning correctly. For double containment tanks that are not 100% vented to atmosphere a 3/16" equalizing line is added to compensate for any pressure or vacuum within the double containment tank.



☐ FIG 1: FOR DOUBLE CONTAINMENT TANKS 100 % VENTED TO ATMOSPHERE



☐ FIG. 2: FOR DOUBLE CONTAINMENT TANKS NOT 100 % VENTED TO ATMOSPHERE

SCHEMATIC DIAGRAMS OF TYPICAL INSTALLATIONS

PETROMETER CORPORATION
P.O. DRAWER P
1807 GILFORD AVENUE
NEW HYDE PARK, NEW YORK 11040

DOUBLE CONTAINMENT TANK LEAK ALARM

Revised 1-85

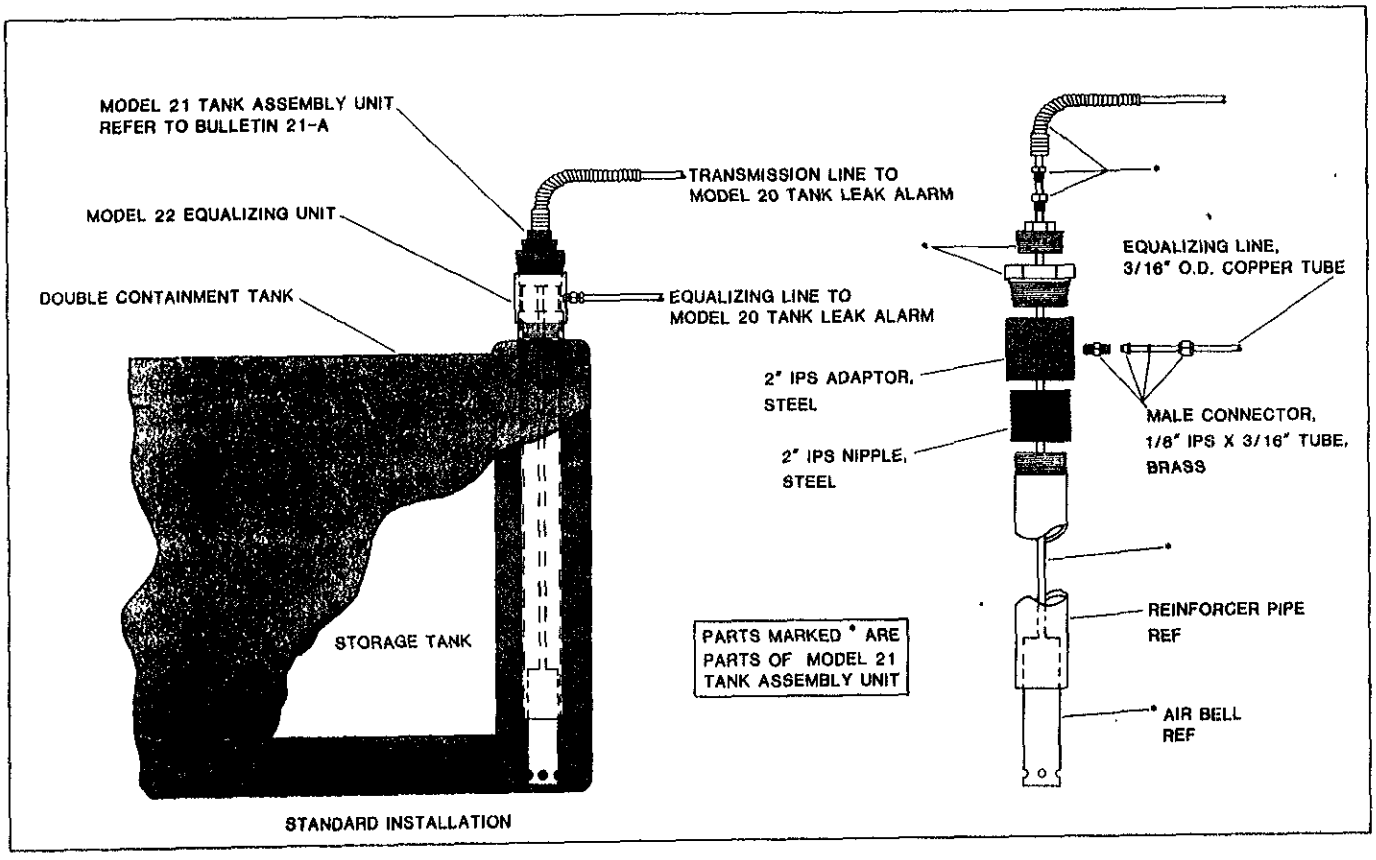
20-A

NIPPLE/COUPLING ADAPTOR: Install the 2" IPS nipple and coupling adaptor (as shown in the schematic below) in opening nearest the low end of tank and then install the Model 21 Tank Assembly Unit as per instructions on bulletin 21-A.

SYSTEM TEST: Refer to Tank Assembly Unit Bulletin 21-A for the test procedure. Equalizing line may be connected or disconnected when the test is performed, it makes no difference.

IMPORTANT: All connections **MUST BE ABSOLUTELY AIR TIGHT.**

EQUALIZING LINE: Uncoil the 3/16" O.D. copper tube equalizing line carefully to avoid bending or kinking. Connect equalizing line to the connector fitting on the coupling adaptor. Run the equalizing line along with the 1/4" O.D. copper tube transmission line of the Model 21 Tank Assembly Unit and connect to the Model 20 Tank Leak Alarm terminal marked EQUAL LINE. **NOTE:** The Model 20 Tank Leak Alarm is supplied with a vented plug in the equalizing terminal fitting. Remove and discard this plug before connecting the 3/16" O.D. equalizing tubing using the front ferrule, rear ferrule and nut supplied with the Model 21 Equalizing Unit.



STANDARD INSTALLATION

PETROMETER CORPORATION
P.O. DRAWER P
1807 GILFORD AVENUE
NEW HYDE PARK, NEW YORK 11040

EQUALIZING UNIT
MODEL 22

22-A

REINFORCER PIPE: A Reinforcer Pipe (not supplied) of 1-1/2" IPS, standard schedule 40 pipe (not heavy duty), must be used to ensure the proper positioning of the Air Bell on the bottom of the tank unless it is held in place by other means.

Cut the pipe so that it is 4 to 6 inches off the bottom of the tank when installed. Thread one end of the pipe and then ream both ends to remove burrs. Test the reinforcer pipe for free passage of the Air Bell — **THE AIR BELL MUST PASS ALL THE WAY THROUGH THE PIPE TO THE BOTTOM OF THE TANK.**

THE MAJOR CAUSE OF INCORRECT INSTALLATIONS IS JAMMING OF THE AIR BELL IN THE PIPE AND NOT RESTING IT ON TANK BOTTOM.

Make up pipe into the 2 x 1-1/2 double tapped bushing and install in opening nearest the low end of tank.

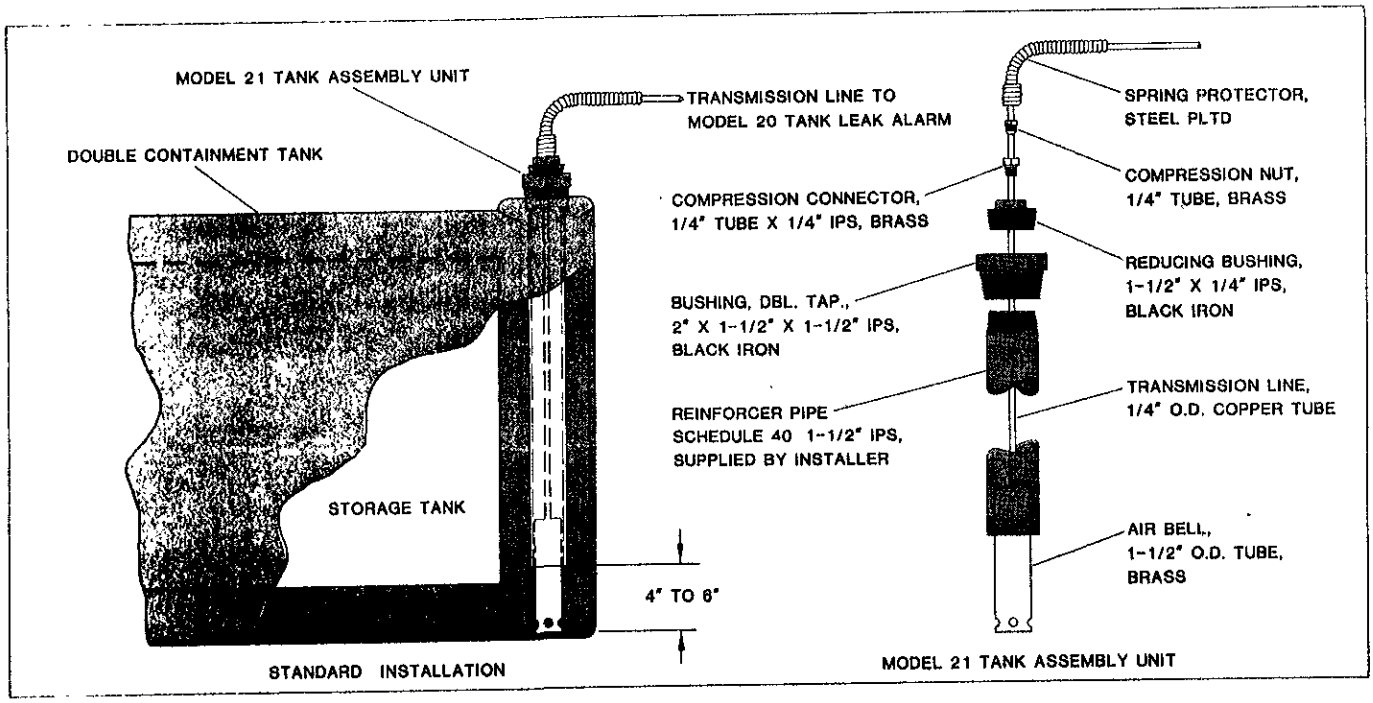
AIR BELL: DO NOT install the Air Bell until the Tank Leak Alarm is tested as per System Test below. The brass Air Bell at the end of the transmission line is the "PICK-UP" device for the Tank Leak Alarm. Therefore, its position in the tank is of prime importance. It **MUST** be on the bottom of the tank as near to the low end as possible.

TANK FITTING: When the Air Bell is resting firmly on the tank bottom, make up the compression nut. This will permanently keep the Air Bell in position. Use only correct size open-end wrenches on the compression nut.

SPRING PROTECTOR: Before bending the transmission line, slide the spring protector down and over the fitting. This will permit bending of the transmission line without kinking and protect the fitting and tubing from the backfill.

TRANSMISSION LINE: Uncoil the 1/4" O.D. copper tube transmission line carefully to avoid bending or kinking. Run the transmission line along with the suction or return line. Whenever possible protect the tubing by running through conduit or pipe. When tubing is not protected, use only soft soil or sand as a cover before backfilling. Connect transmission line to the Model 20 Tank Leak Alarm terminal marked TRANS LINE. This connection **MUST BE ABSOLUTELY AIR TIGHT** for the system to operate correctly. Note: Leave vented plug connected to equalizing terminal unless a Model 22 Equalizing Unit is installed.

SYSTEM TEST: Transmission line must be fully connected to the Tank Leak Alarm, electrical connections made up and power on (Green light ON). Immerse the Air Bell in 1-2 inches of water. Tank Leak Alarm should activate (Red light & buzzer ON, Green light OFF). Depress the pushbutton silencer (Red light & buzzer OFF, Amber light ON). Wait several minutes to check that alarm does not reset until Air Bell is removed from water. An alarm that functions as above is operating correctly and connection is air tight. If alarm does not activate or resets prematurely, an air leak is indicated.



IMPORTANT:

THE MODEL 21 TANK ASSEMBLY UNIT IS FOR DOUBLE CONTAINMENT TANKS 100% VENTED TO ATMOSPHERE. FOR DOUBLE CONTAINMENT TANKS NOT 100% VENTED TO ATMOSPHERE A MODEL 22 EQUALIZING UNIT MUST BE INSTALLED BEFORE INSTALLING THE MODEL 21 TANK ASSEMBLY UNIT.

Petrometer

PETROMETER CORPORATION
P.O. DRAWER P
1807 GILFORD AVENUE
NEW HYDE PARK, NEW YORK 11040

TANK ASSEMBLY UNIT MODEL 21

Revised 2-85

21-A

How sti-P$_3^®$ protects against external corrosion

1
Protective Coating

A tough, corrosion-resistant coating seals the steel tank against attack from aggressive soil conditions. Coatings used with the sti-P$_3^®$ system are first tested by STI for their durability and corrosion resistance. Only tested and approved coatings can be used with the sti-P$_3^®$ system. The surface of the tank is prepared to SSPC-SP6 (commercial blast) standards, and approved coatings are applied to specific thicknesses.

2
Cathodic Protection

Tanks installed with a perfect, undamaged dielectric coating need no other method of protection. In reality, perfect coatings are very expensive and coating damage is likely to occur in shipping, handling and installation. Sacrificial anodes are utilized to protect these damaged areas. A time-honored means of protecting pipelines and ship hulls from corrosion, they provide a protective flow of DC current to the tank and slowly corrode in place of the tank. Their size and placement are pre-engineered, and they are factory-installed. The anodes are self-starting upon burial and need no other equipment or connections.

3
Electrical Isolation

sti-P$_3^®$ tanks are electrically isolated from piping and other adjacent structures. Nylon bushings or flange isolation kits are installed in each opening. The isolation restricts the area protected by the anodes, thereby extending their life and therefore the life of the tank. Stray current from nearby direct current sources can also affect the tank through its piping if isolation is provided.