UltraFlow

mobile bar

14 1888 264

Instruction manual

-Recapitulation-

Table of Content

INTRODUCTION

The UltraFlow dispensing and cooling system is a self-contained, high speed mobile solution for busy places. Developed to meet unique requirements of stadium and event outlets, it delivers beer to a maximum number of consumers in the shortest possible time.
By use of intelligent technology, UltraFlow's high throughput system rapidly dispenses measured volumes of beer into a glass or jug, at a consistent temperature and ensures head height, enhanced clarity and freshness. Consumers no longer wait in frustrating queues, brand promise is guaranteed and retailers offer a faster, more reliable service. Ultra Flow is designed to provide rapid dispense in demanding environments of high volume retail.

GENERAL DESCRIPTION

UltraFlow's unique benefits include:

- Fast dispense rate of 4 seconds a pint or 5 seconds per ½ litre
- Superior quality and consistency of in-glass dispense
- Reduced queuing improves customer satisfaction
- Easy-to-use electronic control system permits use of low skilled staff
- High sales within a minimum of time
- Greater keg yield provided by reducing wastage
- Maximum mobility

SAFETY

Read this booklet before undertaking installation or maintenance.
Recognise safety alerts - isolate the power supply before removing panels or carrying out any maintenance.
DANGER - Indicates an immediate hazardous situation which, if not avoided; WILL result in serious injury, death, or equipment damage.
WARNING - Indicates a potentially hazardous situation which, if not avoided, COULD result in serious injury, death, or equipment damage.
CAUTION - Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury or equipment damage.

Safety Tips – Learn how to operate the Mobile Caddy unit and how to use the controls properly.

AUTHORIZED SERVICE PERSON

CAUTION- Only technicians who are competent with carbon dioxide (CO2) gas / mixed gas, electricity and plumbing should service this unit. ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES OF PRACTICE.

CARBON DIOXIDE (CO2) GAS WARNING

WARNING – CO_2 Displaces Oxygen. If a CO_2 gas leak is suspected, immediately ventilate the contaminated area before attempting to repair the leak.

- Secure CO_2 /mixed gas bottles in an upright position.
- Use Food suitable CO_2 /mixed gas only
- Remember that parts of the device are at operating pressure. Do not loosen or dismantle any components at operating pressure.
- Protect internal components against heat sources including sunshine
- The CO_2 /mixed gas bottle must be connected to a high pressure CO_2 /mixed gas regulator. The regulator must be date coded and compliant to local codes of practice.

HANDLING AND TRANSPORTATION

- This unit is heavy, take care when moving
- Offload the unit from transport as close as possible to the site of intended use
- Use the handles provided to move the unit
- Move the unit no faster than walking pace
- Wherever possible, push the unit rather than pulling as this is ergonomically better and will reduce the risk of foot trapping
- Moving the unit on flat surfaces
    - Keep your shoulder, hips and ankles in line, get the power from your legs
    - Grip the unit at elbow height using the handle provided
    - Don't exert yourself to the maximum, get help if needed
    - Be aware there may be sudden changes of resistance at the intersection of different floor surfaces
    - Plan in advance for stopping
- Inclines and uneven surfaces
    - Seek help from another person when moving up or down an incline and on uneven surfaces
- Keep the unit in an upright position and do not drag over rough floors or down steps.
- On receipt, unpack the unit carefully and visually inspect for any damage which it may have sustained in transit. Record the nature of the damage on the Courier's Delivery Note and at the same time inform your supplier

INSTALLATION

General

Installation must only be carried out by a suitably trained person and comply with national and local codes for CO2 and electrical supplies. It is recommended that in all cases the installation is protected by a RCCB (Residual circuit current breaker)

Siting

The Player Mobile Bar is suitable for outdoor use

The Player Mobile Bar shall not be exposed to rain **DANGER**

Indoor use:
The power supply cords of the Player Mobile Bar must be plugged directly into a grounded, 13amp, 230V socket which is protected by a circuit breaker and easily accessible for isolation of the cooler. **WARNING** The socket shall be installed to current IEE regulations.

Outdoor use:
The power supply cords of the Player Mobile Bar must be plugged directly into an IP66 'weatherproof', grounded, 13amp, 230V socket which is protected by a circuit breaker and easily accessible for isolation of the cooler. The socket shall be installed to current IEE regulations.
WARNING

The Player Mobile Bar is designed for ambient temperatures up to 32°C and should not be exposed to water spillage, spray, steam or high humidity (in excess of 90%rh).

- The unit must be sited on a firm, level surface
- Allow 100mm clearance around the unit to aid air circulation
- Air vents should never become obstructed or blocked
- Access should be possible to the door for ease of keg change/gas change or service
- Do not stand on this unit

Installation

- The appliance must be earthed
- If not already fitted, fit the appropriate electrical plug to the service cord
- The device must be in satisfactory condition whenever operated. Any modifications which detrimentally affect the safety of the device are therefore strictly prohibited. Please contact your service company if you wish to obtain more information about safety
- With the unit unpacked and in position do not connect to an electrical supply at this stage.

Requirements summary

The unit requires a bottle supply of CO_2 /mixed gas and beer keg.
The unit also needs an earthed 13 Amp, 230v socket.
There are no other connections.

Only non – siphon type cylinders should be used. CO_2 /mixed gas cylinders should always be secured vertically with the outlet valves in the uppermost position to prevent injury through ingress of liquid carbon dioxide into the pressure regulators(s). On no account should a connection be attempted to a CO_2 /mixed gas cylinders other than a purpose made high pressure assembly, which is date coded in accordance with the relevant code of practice.

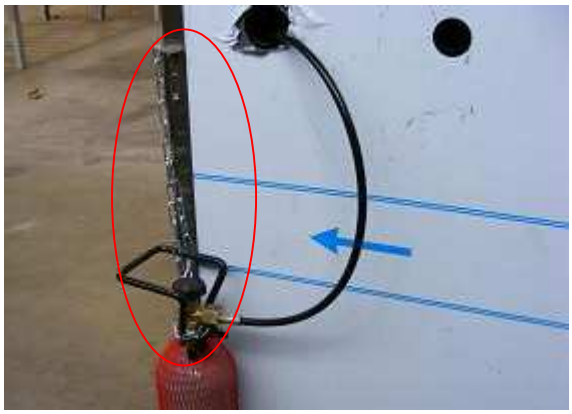
INSTALLATION PROCEDURE

Commissioning

Dismantle the unit, to get access to the cooling system and the electric devices.

Fill the water bath with water, until the level has reached the pointed height of the water gauge.
Energize the cooling device and allow the system to build up an ice bank.

At least 4-5 hours!



Slide the gas connection through the cut out of the sheet metal part and mount the casing again. Connect the gas tank to the unit. WARNING: Secure the gas tank with the chain to ensure the tank can not fall down.

Connect the keg connection as shown with a cleaning tank and clean the complete system as described in "Sanitizing Product Coils". Afterwards connect product tank to the keg connection.

Turn on the CO2 bottle and set the pressure gauge to the required equilibrium pressure +5 psi

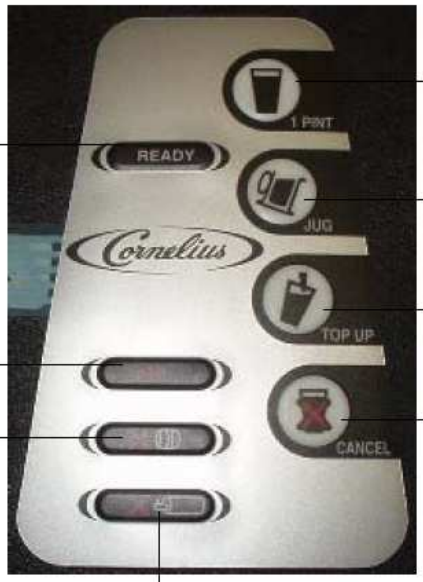
Turn the switch at the beer monitor to release the gathered foam into the overflow.

Activate the pint portion. Check correct operation and ensure the product pipes are fully primed. Check portions are correct using a marked container.

Commissioning UltraFlow font (see Operation)

OPERATION

Button pad functions



Green light shows power to unit

Red light shows fault in module

Red light shows Keg empty

Red light shows Co_2 empty

Press to dispense one pint*

Press to dispense 4 pints*
This function locked on weights and measures approved units!

Press to top up*
This function locked on weights and measures approved units!

Press to cancel dispense at any time*
This function locked on weights and measures approved units!

*** Buttons with multi functions**

Cancel button – Press for four seconds to enter the menu. Once in menu mode press once to exit the menu.

Jug button – Scrolls up through functions in menu mode.

Pint button – Increases a value in menu mode.

Top up button – Decreases a value in menu mode.

Programming

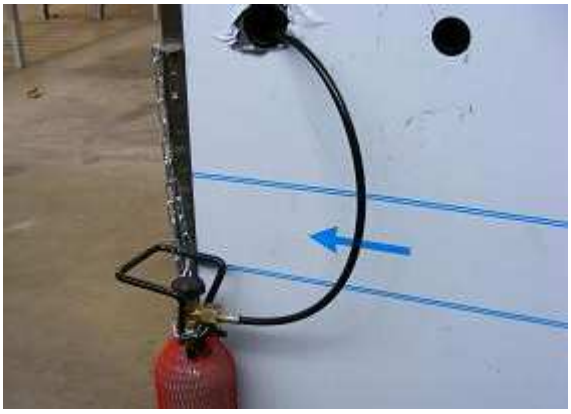
Normal display will read "Ready"
Press and hold "Cancel" button (red lights will alternate on Keg and gas empty)
Display will show pint and jugs dispensed. (these readings cannot be altered).
Press "Portion 2" button to scroll trough the menu:
Press "Portion 2" display will read "pint set up"
Press "Portion 2" display will read "Jug set up"
Use the "Portion 1" and "Top up" buttons to alter value (this applies to all settings)
Press "Portion 2" display will read "Hit (ms)" 100 – **Do not alter this value**
Press "Portion 2" display will read "Hold (%) 020 – **Do not alter this value**
Press "Portion 2" display will read "Pint Timeout" – **Do not alter this value**
Press "Portion 2" display will read "Jug timeout" 40.0 – **Do not alter this value**
Press "Portion 2" display will read "Drain Time" 03.0 – **Do not alter this value**
Press "Portion 2" display will read "Drain delay" 100 - **Do not alter this value**
Press "Portion 2" display will read "Beer saver" 3500 - **Do not alter this value**
Press "Portion 2" display will read "Top up valves 2. Alter between 1 valve or two valves. 1 is for foam, 2 is for clear beer.
To exit the program press "Cancel"

If settings are lost or forgotten, press and hold "Cancel", whilst holding "Cancel" press "Portion 2" button and hold for approx 5 seconds. The unit will default to factory settings.
Cleaning mode:
To set cleaning mode press and hold "cancel", whilst holding "cancel" press "Portion 1" button, hold both buttons for 5 seconds. This will open the solenoids for approximately 20 minutes to allow fluid to
free flow. To stop cleaning press the "Cancel" button.
Glass activated dispense:
If the glass activated dispense button is used, it must be held on for ½ a second before dispense will start. This is to prevent the possibility of "nuisance" tripping of the system, for example, when cleaning the font.

Keg change

Slide the keg connection on the tank and push the lever down.
It is not possible to push the lever down if it is not slided on the tank correctly.
To remove keg, simply pull lever up, and slide it back.

CO_2 /Mixed Gas Change



To change the CO2 tank, remove the connection and the chain, place new tank, add the chain again before connecting the tank to the unit.

SERVICE INFORMATION (FAULT / REPAIRS)

- There are NO 'user' (OPERATOR) serviceable items inside the unit
- Maintenance must only be undertaken by a qualified and trained person
- Only replace the fuse protecting the circuit to the unit with one of an identical type and rating
- Isolate the power supply to the unit during maintenance operations
- Only use Cornelius parts for cooler maintenance. Failure to do so will invalidate approvals and warranty

PREVENTATIVE USER MAINTENANCE

For all of the below, once the maintenance is carried out, follow the Installation instructions for re commissioning the unit

- Switch off and unplug the unit during user maintenance operations

- In the event of the unit malfunctions or suffers spillage or physical damage, unplug the unit from its electrical supply
- Do not switch the unit 'off' and 'on' within five minutes

Sanitizing Product Coils
- Under no circumstances should boiling water or steam be used with this unit as it may result in permanent damage. The maximum temperature permissible is 40°c
- Sanitize when taste is tainted or periodically as advised by the beverage supplier.

- **Cleaning process**

  The system will require thoroughly cleaning using a recognized beer line cleaner followed by sufficient clean water to neutralize the system.

  Employ the standard procedure when cleaning the system i.e. allow the beer line cleaner to remain in the system for approximately 15 to 20 minutes drawing fresh cleaner through the system by operating the pint portion button at approximately 5 minute intervals during the 20 minute soak then thoroughly rinse with clean water using the jug portion button The system can now be connected to a product keg and primed ready for use.

  PLEASE NOTE: When the CO2 supply becomes exhausted the CO2 cut out switch is set to operate before the line pressure falls below product equilibrium. This will help to ensure that CO2 breakout is kept to an absolute minimum. Once the CO2 supply is reinstated the font will automatically resume normal operation. If the product keg empties the system will allow completion of the last portion before stopping normal dispense operation. Normal operation will automatically resume when new a product keg is connected to the system.

Cleaning
- Clean parts coming into contact with air and beverage, the mouth of the tap for example, on a daily basis
- The external faces of the unit should only be wiped down with a damp cloth. Any cleaning materials should be non-abrasive. Do not use any chemicals to clean.
- The condenser fins must be cleaned at regular intervals (approx. Every 3 months). This is best done with a brush and vacuum cleaner.

Periodic Testing
The 1989 Electricity at Work Regulations require periodic testing of electrical equipment and this should only be carried out by a competent person

Daily Inspection
- Check the beverage line for leaks. Only a visual inspection is possible. If liquid escapes, call a service technician.
- Check the CO2-line for leaks by closing the cylinder globe valve on the CO2-cylinder. The inlet pressure indicated on the pressure regulator should not drop. If it does, call a service technician immediately (upon successfully passing this test do not forget to re-open the cylinder valve afterwards)

Putting out of Service
Perform the following steps in case of protracted periods without use
- Have the device emptied and cleaned. Only trained specialists are to carry out this procedure
- Close the CO2-cylinder (valve on top)
- Pull the mains plug out of socket
- Detach the couplings from beverage containers & CO2 cylinder.
- Pull the UltraFlow tower out of the socket and lay it down on the top of the mobile bar and fix it.

Fault finding

Cooling unit

Before looking for problems with the dispense equipment, first check:

- Is the flow of electricity to the device interrupted?
- Is the flow of water to the device interrupted?
- Are the beverage containers empty?
- Is the CO2 cylinder empty?

Type of problem	Cause	Remedy
Beverage too warm, compressor running	Condenser dirty or covered. Temperature set to high Too much beverage being removed	Use brush to clean condenser between louvres. Adjust the temperaure Examine out-put capacity
Beverage too warm, compressor not running	Compressor not turned on.	plug mainplug in, otherwise call service technician
Beverage foams at a tap	Beverage stored too long and enriched with CO_2	Connect container with fresh basic material
Beverage foams at all taps	CO_2 pressure too high Beverage enriched with CO_2 All beverages too warm	Set pressure Connect container with fresh basic materials. Check storage temp See "Beverage too warm ..."
CO_2 volume in the beverage is too low	CO_2 cylinder empty Valve on CO_2 cylinder closed Stopcock on pressure regulator closed CO_2 pressure too low	Change CO_2 cyl. Open valve Open stopcock Adjust pressure

UltraFlow

Fault	Check
❖ No dispense	Is there a 230v electric supply to the 24volt transformer? Is the 5 amp fuse in mains plug intact? Check for a 24v electric supply to the font. Is the transformer switched to ON. Are the 2-Core 24 volt supply cable connections intact? 24v-transformer primary circuit 2 amp fuse And secondary circuit 4 amp fuse. The 24v-transformer (Thermally protected up to 127°C.)
❖ Solenoid valves do not operate when portion buttons are activated	Does the keg need changing Is the Co2 bottle empty? Is the 1pint Beer Monitor fully primed? Is the CO2 pressure switch set incorrectly (remove a signal cable spade connection on the CO2 pressure switch and check if the green font LED is illuminated?

Fault	**Check:**
❖ Solenoid valves operate when the portion buttons are activated – no dispense occurs	Check for kinked or frozen pipes Are all flow valves open? (if fitted in system) Check keg fitting is connected to the keg and RCCD is activated.
❖ Incorrect Measures	Are the portion counts set correctly? If font will not re-program portions – replace PCB control panel or infra red PCB or both. Are the both turbines operating correctly? Are the both turbines operating correctly? (If not replace) Are the turbine plugs plugged in to the PCB sockets? Are the turbines installed with regard to flow direction? Check turbine cables for damage. Check both solenoids are operating during dispense Is the 230 volt product pump on the dispense panel working?

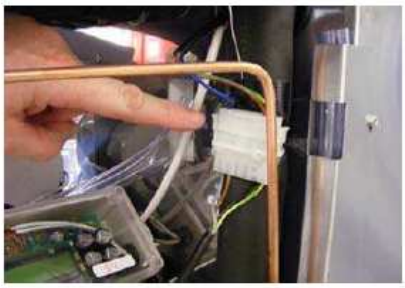
Fault	**Check:**
❖ Poor drinks presentation	Are the product glasses clean? Is the product is in date? Is the storage temperature of the product approximately 3 - 8°C and has it been cooled for at least 24 hours prior to use? Is the product temperature correct at the point of dispense? Is the CO2 top pressure set relative to the storage temperature and the product CO2 volumes? + 5psi Is the CO2 NRV in the keg connector allowing gas to pass into the keg efficiently? Are the product lines clean, and is line cleaning performed every 7 days? Are the Font product solenoid fixing bolts tight?

Parts replacement

Disassemble the agitatormotor on the single Ultraflow Rolldesk

1. Open the service flap on the cooling unit on the backside

2. Remove the cover



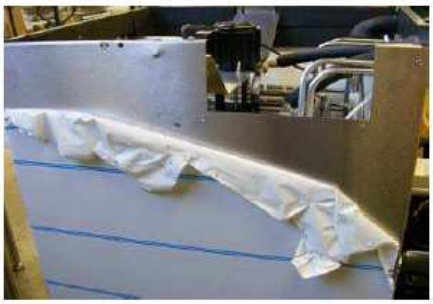
3. Disconnect the cable to the agitatormotor

4. Disconnect the adapter
and move the tube in the waterbath

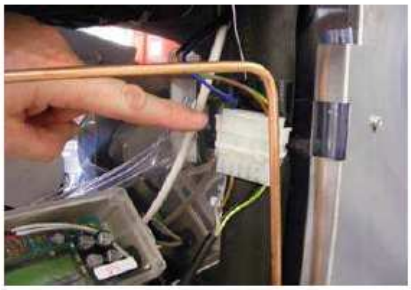
5. Remove the agitatormotor

Disassemble the agitatormotor on the double Ultraflow Rolldesk

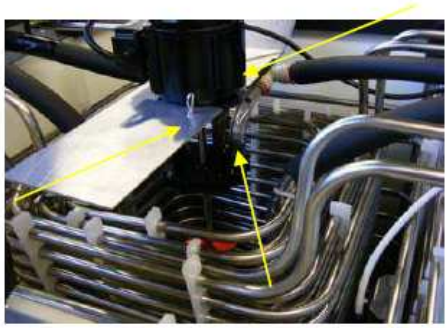
In the double Ultraflow Rolldesk are the sevice flap on the long backside



1.Open the service flap



3. Disconnect the cable to the agitatormotor

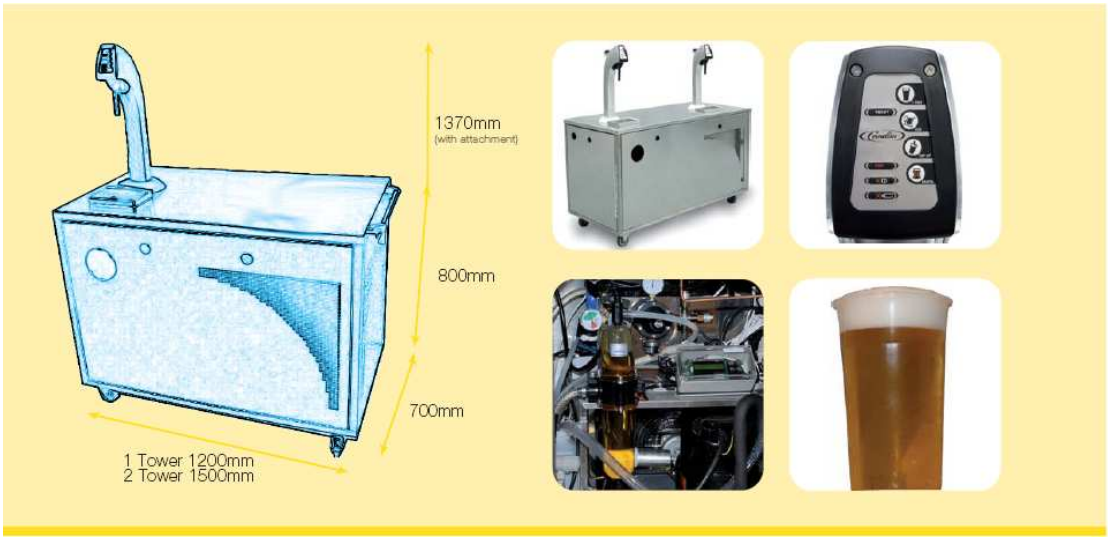


2. remove the plastictube and the 2 clamps
(look at the arrows)

4. Remove the agitatormotor

Technical data

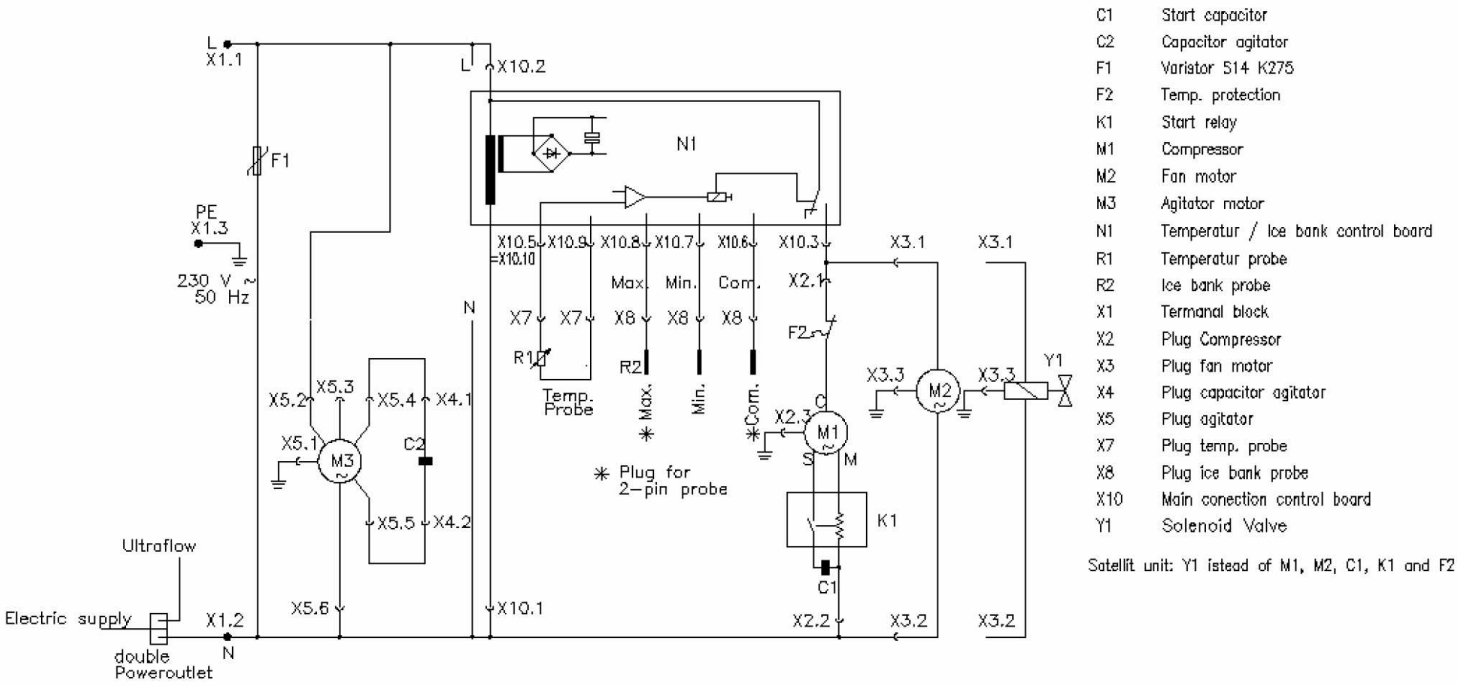
Parameter	1P Mobile Bar Unit	2P Mobile Bar Unit
Existing Part Number		
Standard Version	220100518S004	220100518S006
English Version (different Powercable)	220100518S012	220100518S013
Height (excl font)	920mm	920mm
Depth	700mm	700mm
Width	1260mm	1510mm
Weight (without water)	220kg	250kg (estimated)
(with water and icebank)	340 kg including 50 kg icebank	370 kg incl. 50 kg icebank
No of Dispense Points	1	2
Dispense Platform	UltraFlow	UltraFlow
Dispense rate per nozzle	6 pints per minute	6 pints per minute
Beer Types	Lager, Bitter and Stout	Lager, Bitter and Stout
Gas Used	Mixed Gas (60/40)	Mixed Gas (60/40)
Electrical connection	UK 3 Pin Plug	UK 3 Pin Plug
Electrical Supply	2 x 13A	2 x 13A
Socket for Till	Yes	Yes
Cooling Platform	CR11 or equivalent	CR11 or equivalent
Ice Bank Capacity	50kg	50kg
Coil Diameter	10mm	10mm
Coil Length	1 x 20m	2 x 20m
Dispense Capability in first hour		
ÄT of 10 C	918 Pints	918 Pints
ÄT of 20 C	460 Pints	460 Pints
ÄT of 30 C	306 Pints	306 Pints
Maximum Ambient	32 C	32 C
Weight and Measures Approved	Yes	Yes
Removable font	Yes	Yes
5 lt Cleaning Bottle Supplied	Yes	Yes
Keg Connectors	1 x Sankey + 1 x Grundy	2 x Sankey + 2 x Grundy
Keg connectors connected	1 x Sankey	2 x Sankey



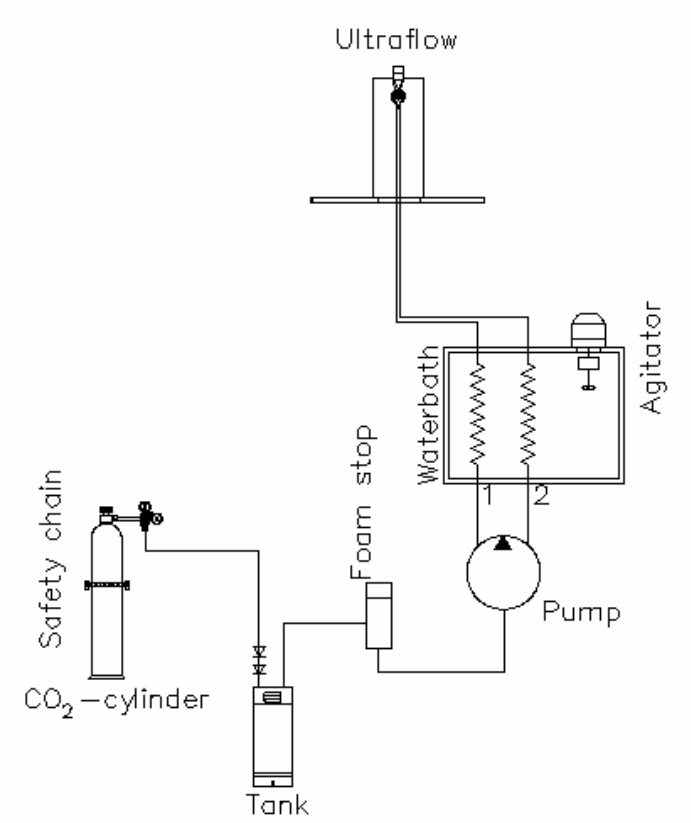
Wiring Schematic / System Schematic

Ultraflow - Mobile Bar

1. CR11 Circuit diagram



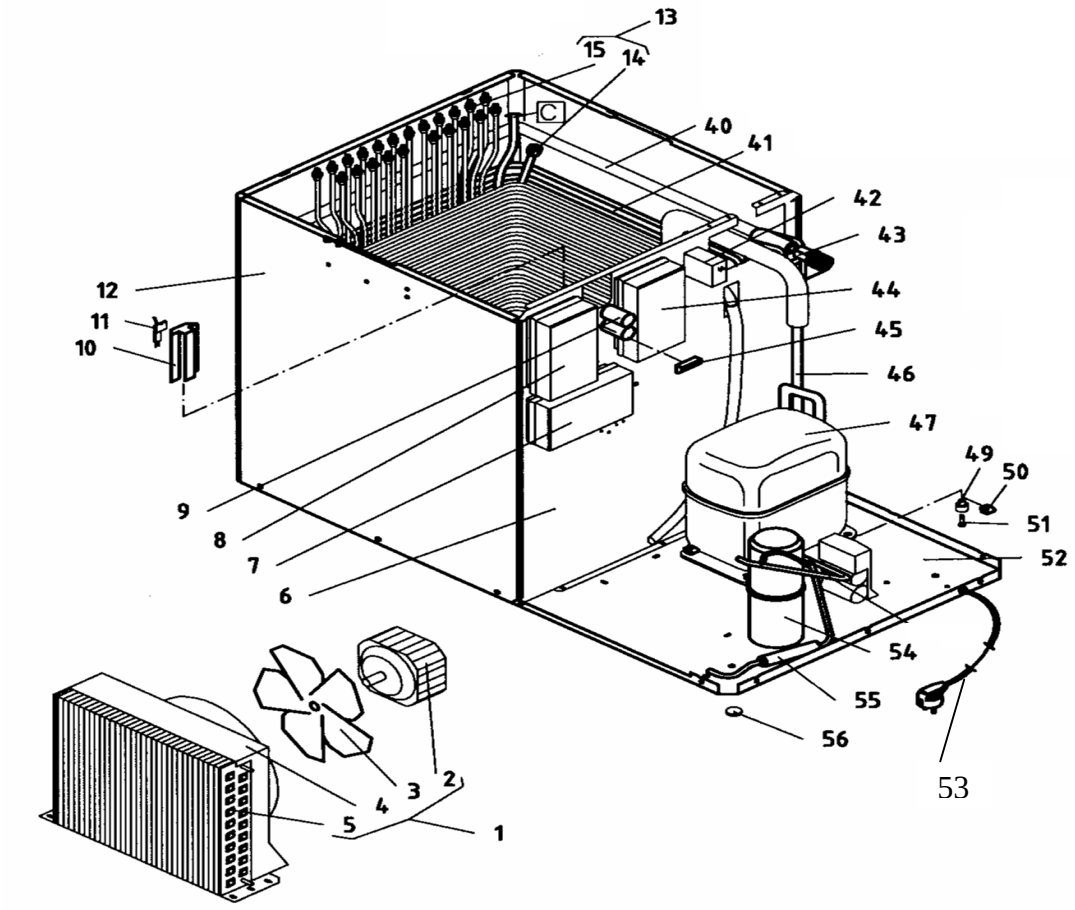
2. Flow chart



Spare parts list

CR11 Cooler

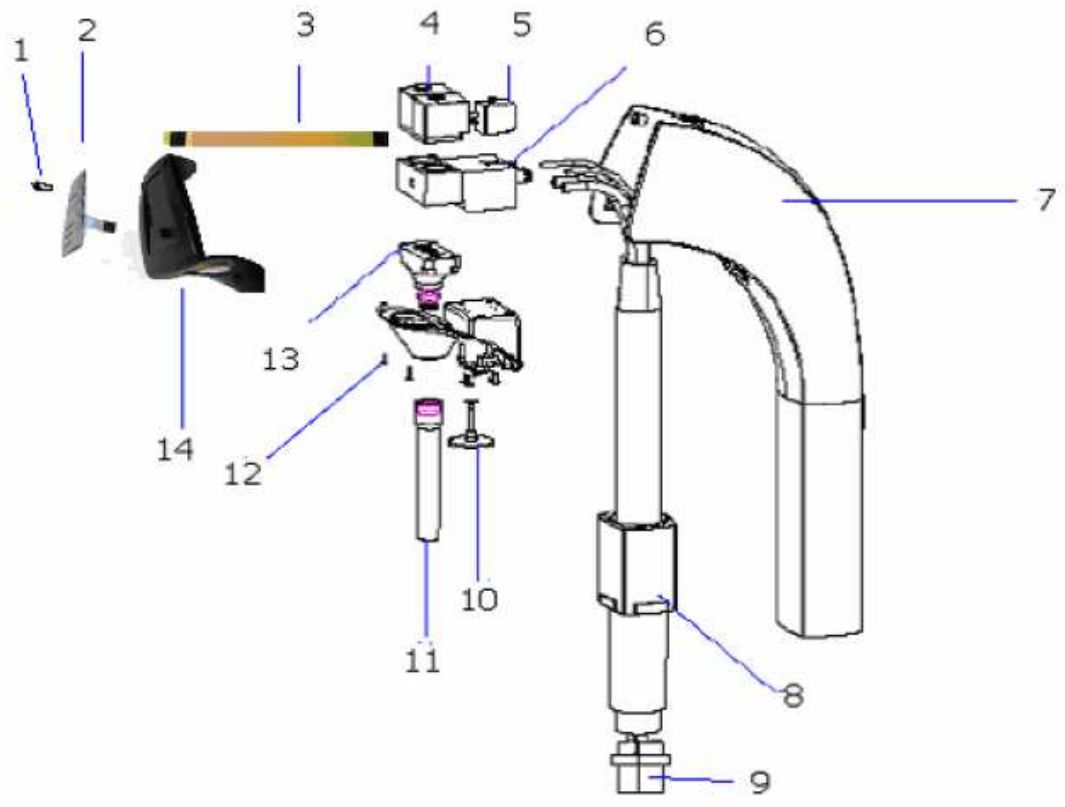
Item	Part code	Description
52	220055105	BASE SHEET CR11
56	143277000	ADJUSTING FOOT
NS	220055074	OVERFLOW TRAY CHROME - SC
47	440000236	COMPRESSOR GS 34 TB
51	189722000	BOLT
49	131706000	BUFFER VIBRATION 32x23
50	187888000	CLAMP
1	440000704	CONDENSER STVF 273
40	220055172	WATERBATH CR11
12	220055102S010	SHEET METAL HOUSING WATERBATH TRITON 250
43	147029434	EXPANSION VALVE TUC 4
53	58 0446 241	MAINS CABLE
7	141647307	CONTROL + BOX CPL. ICEBANK
11	142500520	ICEBANK PROBE 3 PIN
10	220055198	SUPPORT BRACKET ICEBANK PROBE CR11
27	220055712S003	TIE BAR AGITATOR CR7
25	220098234	RUBBER BUFFER AGITATOR
23	149550255	AGITATOR 5/1 CR 4-7
24	143350000	AGITATOR PROPELLER Ø60M5
41	220094917S019	COOLING COILS ASSEMBLY 4 X 10M



Parts List/Exploded View

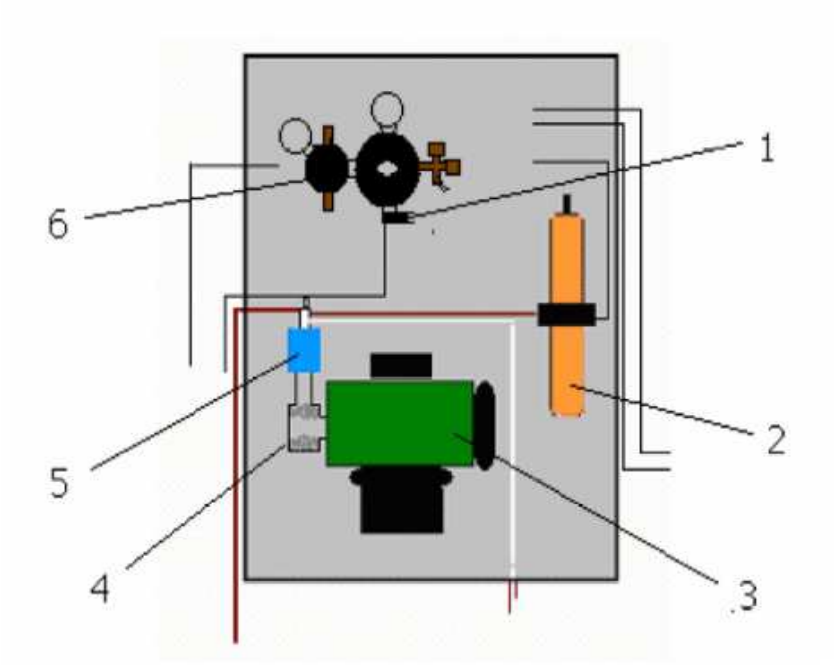
UltraFlow Dispense Head

Item	Part Code	Description
1	13 5822 000	Screw
2	07 0 001868	Membrane
3	07 0 001959	Ribbon Cable
4	07 0 001381	Webber Solenoid 9W
5	38 0 31004	Solenoid 24V DC Webber
6	38 0 65619	Manifold Block
7	22 0099 633s001	Column
8	22 0099 732	Housing
9	07 0 001892	Turbine (Titan)
10	22 0099 634	Micro Switch
11	07 0 001410	Spout
12	14 3944 000	Screw
13	07 0 001409	Nozzle Block
14	07 0 001916	Front Cover
Not shown	07 0 001640	Pneumatic Valve
Not shown	14 9854 151	Drip Tray
Not shown	22 0019 704	Display Cover
Not shown	07 0 001893	Electronics Pack (located below the counter)



Ultraflow Dispense Panel

Item	Part Code	Description
1	XP110015	Pressure Switch
2	07 1 001294	Beer Monitor
3	51258KPN	Induction Pump
4	07 0 001372	Pet Cock Valve
5	54000PROTO	Pektron Flow Controller
6	55 001 022	Mixed Gas Regulator
	55 001 023	CO2 Regulator
	58 0446 185	RCD Power Breaker
	07 0 001644	Resistor
	07 0 001374	Non Return Valve



Model Written Scheme of Examination for Mobile "Player" Bar

This scheme should be completed by the nominated technical person or by a technician on behalf of the nominated technical person.

Notes on BBPA Code of Practice Competent Person

The design, installation and use of equipment for the pressurised dispense of beer and cider all come to some degree under the Pressure Equipment Regulations 1999, SI 1999 No. 2001(PER) and the Pressure Systems Safety Regulations 2000, SI 2000 No. 128.
It is important that retailers, licensees, design engineers, contractors, owners and users of such equipment understand their responsibilities for the safety of pressure systems.
The Code of Practice for the Dispense of Beer by Pressure Systems in Licensed Premises (updated 2005) has been produced by the British Beer and Pub Association to assist the above mentioned persons to comply with the Pressure Regulations requirements.
The Code clearly suggests the mechanical and organisational requirements for fixed installations to enable compliance with the regulations.
Although primarily intended for fixed (cellar) installations it refers to the need for similar controls on mobile/portable installations.
To enable these controls to operate and ensure safe use of pressure dispense equipment it defines certain responsibilities for "Authorised" persons, "Competent" persons, owners and users of pressure systems.
Of these the most important is the "Competent" person who must have sound practical and theoretical knowledge of the pressure systems and allied equipment used in beer dispense and the appropriate legislation.
Such a person will be able to detect errors or deficiencies in any proposed design, and identify those elements of the system which will require periodic examination.
He/she will also draw up and/or certify that the written scheme and examination process are adequate.
In the case of mobile bars it is suggested that a separate written scheme is introduced for each model of unit taking into account the amount of use and the complexity of equipment involved.

Text for further reading:-
BBPA Code of Practice for the Dispense of Beer by Pressure Systems 2005 (Brewing Publications Ltd)
The Pressure Systems Safety Regulations 2000 (SI 2000 No. 128)
The Pressure Equipment Regulations 1999 (SI 1999 No. 2001)
Instructions for the Safe Operations of Gas Pressure Systems used in the Dispensing of Beers and Lagers published 1998 by Brewing Publications Ltd.

Model Scheme for mobile "Player" bar. Mod 28.08.08

Company Name

Department Name

Written Scheme of Examination for Mobile Dispense system Using Top Pressure Gas

Used in the storage and dispense of Draught Beers Wines and Ciders

Written scheme number

Prepared for: *Company Name*

Company Address

Post Code

Tel

Fax

By Dick Ward

IMI Cornelius UK Ltd
Tything Road
Alcester
Warks. B49 6EU

Tel 01789 763101
Fax

Name and Address of Owner

Name

Address

Post Code

Tel.
Fax.

Pressure System Types

1 Carbon Dioxide Pressure System
2 Carbon-Dioxide/Nitrogen Mixed Gas System

Location of Records

Address(es) of Record Locations

Tel :
Fax :

Scope of this Written Scheme of Examination

This Written Scheme of Examination applies to mobile pressure systems that:

a) are operated within licensed event areas.

b) Are used for distribution of top pressure gases used for the storage and dispense of draught

c) beers, wines and ciders; and

d) Fall within the requirements of “The Pressure Systems Safety Regulations, 2000”.

Only items of plant contained within the mobile system that:

Company Name own; or

Company Name own and use; are included under this written scheme.

This written scheme of examination consists of five sections:

Section 1 : Plant to be Examined

Section one identifies the items of plant, within the pressure systems, subject to periodic examination. These items are identified by reference to a block diagram for the generic pressure systems used.

Section 2 : Items of Plant not to be Examined under this Scheme

Section two contains, where appropriate, items of plant within the pressure systems that are not subject to periodic examination under this written scheme. Some of these items of plant may be subject to periodic examination under some other written scheme of examination.

Section 3: Preparation and Examination Procedures

Section three specifies the nature of any periodic examination that may be required, including any preparatory work necessary to prepare the plant for examination.

Section 4: Review Dates

Section four states the requirements for reviewing the written scheme of examination.

Section 5 : Modifications

Section five records any modifications to the written scheme of examination arising from the formal review, or due to any other reason.

Legislation

The pressure systems used for the storage and dispense of draught beers, wines and ciders are simple. They must comply with legislation. The following Regulations concern the pressure systems, and the components used in their assembly:

1) The Pressure Systems Safety Regulations 2000 (SI2000 No. 128)

2) The Pressure Equipment Regulations 1999 (SI 1999 No.2001)

3) "The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2004" (SI 2004 No. 568)

Related Documents

a) "Code of Practice for the Dispense of Beer by Pressure Systems in Licensed Premises 1994", published by Brewing Publications Ltd, June 1994.
b) "Code of Practice for the Dispense of Beer by Pressure Systems in Licensed Premises 2005", published by Brewing Publications Ltd, January 2005.
c) "Instructions for the Safe Operation of Gas Pressure Systems used in the Dispensing of Beers and Lagers", published by Brewing Publications Ltd, April 1998.
d) Product Manual and Operating Instructions.

Section 1 – Items of Plant to be Examined

The pressure systems used for controlling pressure in dispense and storage systems
installed in this mobile unit are defined within the Regulations (SI 2000 No.128) as "installed systems". The pressure systems are also defined as "assemblies" of pressure equipment within the Pressure Equipment Regulations. This gives exemption from regulations 4 and 5(1) and (4) of The Pressure Systems Safety Regulations.

A block diagram **Figure 1** is used to describe the pressure system used within *the specific model of mobile unit.* **Table 1** describes the various blocks.

In figure 1 the parts of the plant that fall within the scope of this written scheme are contained within the blocks labeled "primary/secondary pressure reducing system". This integral unit contains a primary pressure-reducing element close coupled to a secondary pressure-reducing element, each stage having two protective pressure relief (safety) valves. The items of plant requiring examination are the primary pressure-reducing element in the "primary pressure reducing stage" (normally a pressure-reducing valve, several types being normally used) and the two pressure relief (safety) valves of both stages.

Figure 1 : Block Diagram of Pressure System for "Player" Mobile unit used for Storage and Dispense of Draught Beers and Ciders, when using the principle of examination by replacement.

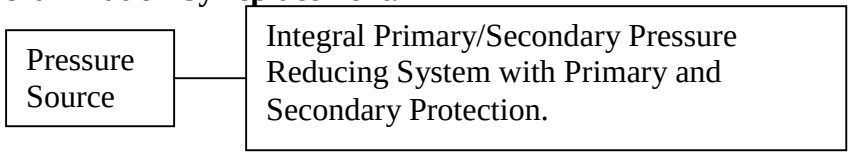


Table 1 : Description of Blocks in Figure 1

BLOCK	CHARACTERISTICS
Pressure Source	CO2 Cylinder; Mixed Gas Cylinder
Primary Reducing System/ Primary Safety Valves	Inlet max. allowable pressure: to suit pressure source; Capacity: max. 66 litres/minute with full cylinder. Maximum allowable outlet pressure to secondary: 150 psig for all gases.
Primary Inter-stage Protection-Protecting Secondary stage components.	2 x Pressure Relief (Safety) Valves mounted on Primary Pressure Reducing Valve: remain seated up to set pressure +10%; re-seat by set pressure -10%; capacity of each valve: minimum 67 litres free gas /minute at max. set pressure +10%. Maximum allowable Inter-stage pressure = set pressure + 10%. Maximum set pressures: 150psig for all gases.
Close-coupled Secondary Control Valve with secondary supply protection.	Integral Secondary Pressure Reducing Valve with 2 x pressure relief (safety) valves, mounted close in-line; capacity not greater than the Primary Safety Valve; set relief pressure (45psig) below max. safe working pressure of downstream equipment; relieving capacity greater than secondary valve capacity.

Section 2 – Items of Plant *NOT* Requiring Examination Under this Written Scheme

Items of Plant Exempted Under this Written Scheme

The Regulations except some items of plant from examination. Such items are:

1) kegs (of volume less than $0.252m^3$ and maximum working pressure less than 12 bar above atmospheric);
2) any small vapour compression plants (less than 25kW total installed power).

Items of Plant not Requiring Examination under this Written Scheme

Items of plant are not intended to be examined on a regular, defined basis, if it is not anticipated that deterioration will develop and propagate, or which are of a size and nature or installed in a location such as not to constitute a danger in the event of failure. *(To qualify for the permitted exception from periodic examination, items of plant should meet at least one of these conditions, in all installations to which this written scheme applies. The competent person must be satisfied that this is so.)*

Examples of such items of plant not requiring periodic examination under this written scheme include:

Gas piping and tubing; piping/tubing/line fittings; secondary pressure reducing valves.

Plant and Pressure Systems not included in this written Scheme of Examination

This written Scheme of Examination does not cover:

Any part of the mobile equipment of which the *Brewery Company Name/Supplier* is neither the owner or user.

Any transportable pressure receptacle (ie compressed gas cylinders), which are subject to other examination regimes by their owners;

Section 3 – Preparation and Examination Procedures

3.1 Initial Examination

All units are supplied new or refurbished, pre-set (where possible) and tested. There is no requirement for further examination before the unit is put into use.

3.2 Equipment Repairs on Site

No major repairs should be undertaken on site. Repairs to the pressure system should only be carried by competent trained service personnel.

3.3 Examination by Replacement

The specified parts of the pressure system in this mobile unit will be subject to examination by replacement.

Nature of Examination

All items identified for examination in section 1 as requiring periodic examination will be “examined by replacement”.
(This does not preclude a change to on-site testing. Before any change is introduced into any examination procedure, the competent person must agree the new regime in writing. Any amendments to the written scheme must be introduced before the new/modified procedure is put into practice. Adequate training of affected personnel is essential).

Examination by Replacement

Preparation:

Prior to removal of any component part of the pressure system, the system should be isolated from any source of pressure and the internal pressure relieved.

Removal:

The part, or assembly of parts, specified to be “examined by replacement” shall be removed with care and diligence so as not to cause any damage or deterioration to either the parts or connecting parts in the system. The removed parts shall be returned to original manufacturer/repairer for testing and recording of results prior to refurbishment. Care should be taken to minimize transit damage.

Replacement:

Replacement parts shall be new or refurbished to current standard.
Replacement must be performed in such a manner that will not cause damage to the parts in question or connecting parts of the system. New or refurbished parts must perform to the same operational parameters as the parts being replaced. No modifications or adjustments shall be made to the parts or system unless specifically required by the specification.

Personnel:

Only competent trained personnel are allowed to carry out examination by replacement.
A record is to be kept of personnel deemed competent and trained for these duties and they should be made aware of their responsibilities.

Records:

Records of the examination/replacement on the specific mobile unit are to be updated at time of replacement with an indication of next due examination date. Where a part is replaced during normal service/operation, the next examination date remains unchanged.

3.4 Period between examinations:

A maximum period between examinations for the pressure system parts is 5 years.

The high pressure hose feeding the primary regulator should be examined for damage annually.

In addition the electrical parts of the unit will require examination and PAT test at maximum of 12 month periods.

3.5 Response to Imminent Danger:

The competent person must, in the event of discovering a material condition which could give rise to imminent danger, inform the owner/owner representatives of the condition and ensure the unit is taken out of use until such condition/s has been rectified.

Section 4 –Review

Review of the Written Scheme

A review by a competent person of this written scheme will take place annually.
If the review recommends any modifications to this written scheme, the scheme will be so modified.
The following record of review will be kept:

Date of review	**State if modified (yes or no)**	**Signature of competent person**

Section 5 – Modifications

Modifications to this written scheme

Modifications to this written scheme will be recorded in the table below.

Date of modification	**Description of modification**	**Signature of competent person**