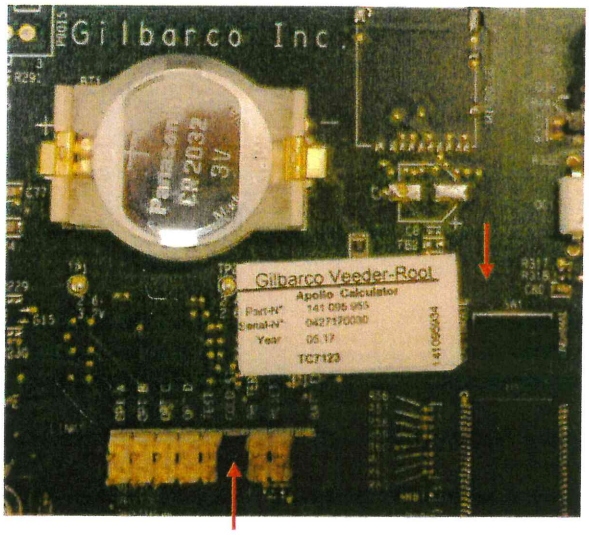
STANDARD PARTS		DQ72266-570
GILBARCO AUSTRALIA LIMITED A.C.N. 000 020 799	Equivalent GSO Std No.	Contents based on Std

Procedure to Cold start and Re-configure a SK700-2 / Horizon Frontier / Endura with APOLLO CPU Board.

Cold Start:



- Remove Cover over CPU PCB to get access to switch and Cold start link.

- Move switch to **CAL.** Position (left side)

- Add link in **Cold Start** position as shown.

- Power up or press **F1, F2** on the Manager Keypad to re-start the Pump / Dispenser.

- After Power up there should be a flashing **E 9** on the Display. If there is **no** flashing **E 9**, check if switch is in **CAL** position. Redo the F1, F2 on the Manager Keypad if necessary.

- Remove Link from the Cold start position.

- Re-start Unit, press F1 F2 on Manager Keypad.

- Enter Manager mode, press **F1**, "Code", [Enter].

- Set the Country code for Australia, this will set the default configuration, shown in "**Bold**", for Australia. This country code can only be entered after a cold start.

- Press **95** [Enter], **2**[Enter], **36** [Enter] Country Code for Australia.

- Press **F1, F2** on the Manager Keypad to re-start the SK700-2. Otherwise it may reboot during Programming.

Get Config file from Pump:

- Insert Special USB Stick into USB socket (see at end of Procedure for specs)

- Press "**8**" on Keypad, Led near USB should turn RED, after few seconds display shows "**Get config**"

- Remove USB Stick. USB has Folder "**ApolloLogsYYMMDDHHMMSS**", in it "**Result.dat**" is Config file.

Send New Software to Pump:

- Power down Pump, Insert Special USB Stick with correct Software into USB Socket

- Move switch to "**Cal**" position (left side), Insert Link to "**Cold start**" position, Power up Pump.

- Display shows "**USB Load**", after a while shows "**Flash**", when PPU Display shows "------", remove USB Stick Cycle power or press "F1" "F2".

- After Power up Display should show flashing "**E 9**" and display Software Version and Checksum, make sure the correct Software Version and Checksum is displayed. - Remove "**Cold start**" link and start re-configure the Pump

Issue	A	B							
Date	08/11/17	13/12/17							
EAA									

File Name: /Prodeng/lefiles/Proceds/Aelc/72266570.DOC	App'd	Drawn E.Christen	DQ72266-570
Desc. APOLLO Programming Procedure for SK700-2/Horizon/Frontier/Endura			Page 1 of 7

Form No. DQ08350-001

is 1 Here number

Configure Pump with APOLLO CPU: (xx.x = x = Function Number changed from E101)

Set the Country code first this will configure the different settings seen in **bold**

95.2 = 36 — Country code Australia, this can only be done after a cold start.

20.3.1.1 = 1100	PPU G1 = set to 110.0	20.3.4.1 = 1400	PPU G4 = set to 140.0
20.3.2.1 = 1200	PPU G2 = set to 120.0	if 5 Grade	
20.3.3.1 = 1300	PPU G3 = set to 130.0	20.3.5.1 = 1500	PPU G5 = set to 150.0

22.1 = 9 — Incremental Preset, Money only, 4th button def. $20, 1= No Preset, 15= New Zealand Preset

40.1.1 = 01 — Pump number side 1 set to #1
40.1.2 = 02 — Pump number side 2 set to #2

40.22 = 10 — POS Comms Timeout default to 10 seconds

40.23 = 1 — Two wire reported money size, 1 = 5 Digit, 2= 6 Digit
40.24 = 2 — 3 Decimal figures: XXX.XXX (5 Digit), 1 = 6 Digit

49.1 = 0 or 1 — **0 = STP off for Pump**, 1 = STP Delay 1 sec for LPG and Dispenser

60.1 = Time — HHMM — Has to be Programmed before sending out
60.2 = Date — MMDDYY — Has to be programmed before sending out.

61 = 1 — **1 = Without leading zero**, 2 = leading zerro

75.1,2,3,4 & 5 = 0 — **0 = default**, (VR, LPG or AdBlue only 1 = Petrol, 2 = Diesel, 11 = LPG)

80.1.1 to 4 = 40 — Flow rate: Vapour=38, **Normal=40**, High Flow=70, (UH=80.1.1 = 140) For High flow check
80.2.1 to 4 = 40 — Flow rate: Vapour=38, **Normal=40**, High Flow=70, (UH=80.1.2 = 140) Customer sheet

83.5 = 2 — **2 = Zero Transaction data after Lamp Test**

83.8 = 3 — **3 = price change immediately (POS Protocol)**

83.12 = 40 — **40 = min display volume**
83.13 = 2 — **2 = Show "Preset"**, 1 = disabled

83.19 = 2 — **2 = remote preset display enabled,** 1 = disabled

83.20 = 5 — **5 = hose pressurisation long cycles**, 1 = no hose pres.

85.4 = 2 — **2 = PPU Decimal position xxx.x**

86 = 1 — **1 = Decimal point**

53.11 = 150 — max no flow timeout (150 sec)
53.12 = 250 — max fill timeout (250 x 10 = 41min)

90 = 1	**Set to Grades 1** to 4 or 27 for Ultra High Flow or 35, 41, 51, 77, Set to 28 if 5 Grade (10 Hose) Unit
91.5 = 2	**2 = Push to stop enabled**
91.10 = 2 ****	1 = w/o hose retraction, **2 = hose retraction (1 = Frontier, Horizon and Endura)**
91.11 = 3	**3 = tote per grade**, 4 = Ultra High Flow (combined totes)
91.14 = 1	**1 = No VR**, 4 = VR
91.15 = 1	1 = PPU per Product, 2 = PPU per side (single Product)
91.17 = 1	UHF Unit Type for Function 90, 4= UHF, 2= Mixed Flow (Ultra High, High, Extra Valves POB)
92 = 1	1 = Both sides, 2 = single side (Side1), 3 = single side (Side 2)
15.1.X	Displays Serial Number of AdBlue Meter or SIP Pulser in X position.

NEW ZEALAND

22.1 = 15	New Zealand Preset Key pad
22.9 = 1	Preset Value accepted without Enter key, 2 = with Enter key
22.10.1 = 1	Key 1
22.10.2 = 2	Key 2
22.10.3 = 3	Key 3
22.10.4.**0**	Default
22.10.5.**0**	Default
22.10.6.**0**	Default
22.10.7 = 4	Key 7
22.10.8 = 5	Key 8
22.10.9 = 6	Key 9
22.10.10.0	Default
22.10.11.**0**	Default
22.10.12.**0**	Default
22.10.13 = 7	Key 13
22.10.14 = 8	Key 14
22.10.15 = 9	Key 15
22.10.16.**0**	Default
22.10.17.0	Default
22.10.18.**0**	Default
22.10.19 = 11	Key 19 (Clear)
22.10.20 = 10	Key 20
22.10.21 = 11	Key 21 (Fill = Clear)
22.10.22.0	Default
22.10.23.0	Default
22.10.24.0	Default
22.11 = 2	Whole Dollars
53.2 = 60	Preset Timeout to 60 seconds
83.11 = 2	Sump Sensor Enabled (J2 = BIB2 on PUMALAN I/O Board)

HORIZON / FRONTIER / ENDURA

91.10 = 1	No Hose Retraction if Horizon/Frontier/Endura Pump / Dispenser. Endura cant be changed

FRONTIER

83.15 = 2	Australian Price Change
91.4 = 2	per Side 2 Displays
91.10 = 1	No Hose Retraction if Frontier Pump / Dispenser
91.11 = 2	Totaliser per Hose / Meter; **Totaliser in G1 and G2 of each (G1 & G2) Display Boards.**
91.11 = 3	Totaliser per Grade, Totaliser combined in one Display Board or with Display Bus(Apollo)
91.15 = 2	PPU per side

If 90 is not set to 80 do the following:

82.2 = 1	Protocol 2 Grade Mapping nozzle 1 side A
82.7 = 1	Protocol 2 Grade Mapping nozzle 2 side B

ENDURA

If Remote Display

91.4 = 3	3 = Side 1 = 2 Displays, Side 2 = 1 Display

VAPOUR RECOVERY

75.1,2,3,4	Grade 1 to 4 set to 1 = Petrol, 2 = Diesel, 11 = LPG
80.1.1 to 4	Side 1 Grade if Petrol set to 38, If Diesel set to 40
80.2.1 to 4	Side 2 Grade if Petrol set to 38, If Diesel set to 40
83.14 = 2	2 = VR Led enabled (Only if Combi Display)
91.14 = 4	4 = VRC 390/2, 1 = no VR

LPG (needs A30204 Software or higher)

49.4 = 2	Parallel Output Board, Link set to JP2 (Software 61060503.HEX)
75.1 = 11	Grade 1 set to 11 = LPG
91.19 = 2	preset enabled for LPG
83.24 = 2	1 = error 6186 stops transaction (default), **2 only log error**, 3 valves stay on
91.25 = 1 or 3	LPG probe communication: **1 = no**, 3 = yes
97.1.1 = 2	Nozzle type for LPG side 1, product 1
97.2.1 = 2	Nozzle type for LPG side 2, product 1

FLOW SELECTOR SWITCH FITTED. (needs 29-04-17E Software or higher)

97.1.x. = 4	Nozzle type for side 1, grade = x, set to 4	40/70 Button Flow Rate Select
97.2.x. = 4	Nozzle type for side 2, grade = x, set to 4	40/70 Button Flow Rate Select

ADBLUE

75.x = 2	**x = used** Grades set to 2 = Diesel
97.1.x = 8	Nozzle type for side 1, grade x = 8 AdBlue with CORIOLIS or KROHNE Meter
97.2.x = 8	Nozzle type for side 2, grade x = 8 AdBlue with CORIOLIS or KROHNE Meter
New Modbus Option:	(Extra Cable from Converter Board to p9012)
91.29 = 2	2 = Modbus via VRC channel(P9012).
91.7 = 3	Pump Handle Configuration is IS or PPU Pump Handles
If Single PPU:	
83.15 = 2	Invoke 83.8 = 3, when 91.15 = 2 (PPU per side)
91.15 = 1 or 2	1= PPU per Product (Multi product), 2 = PPU per side (single Product)
76.9.X	Assign AdBlue Meter to position X, one meter at a time, disconnect second meter. Security on Meter OFF (KROHNE Magnet out) Power Cycle after assigning.
15.1.X	Display Serial Number of AdBlue Meter or SIP Pulser in X position.

ULTRA HIGH FLOW

80.1.1 = 140	Side 1 Grade 1 = Ultra High flow
80.1.2 to 140	Side 1 Grade 2 = Ultra High flow
90 = 27	Unit Type = Ultra High Flow
91.11 = 4	Totaliser Ultra High Flow
91.17 = 4	Ultra High Flow Unit Type

WOOLWORTH / CALTEX

40.23 = 2	Two wire reported money size 6 Digit
40.24 = 1	Two Wire same as volume DP on display (6 Digit)

COSTCO

40.22 = 30	POS Comms Timeout set to 30 seconds (Default is 10 sec.)

IF SINGLE PPU

83.15 = 2	Invoke 83.8 = 3, when 91.15 = 2 (PPU per side)
91.15 = 2	PPU per side (single Product)

FOR T928A1xx (1 Hose IO (Island Oriented))

91.4 = 3	(Side 1 = 2 Displays, transaction can be seen from both sides
92 = 2	Single Side (Side1)

FOR T928A1xx or T928A2xx (1 or 2 Hose IO (Island Oriented))

82.2 = 1	Protocol 2 Grade Mapping nozzle 1 side A
82.7 = 1	Protocol 2 Grade Mapping nozzle 2 side B

HORIZON (Width Multi Media Display)

91.4 = 2 Per Side 2 Displays

New Zealand Sump Sensor:

83.11 = 2 Sump Sensor Enabled (J2 = BIB2 on PUMALAN I/O Board)

5 Grade (10 Hose) SK700: (needs A30204 Software or higher)

90 = 28 Grade 1 - 5

62.1.1 = 1 Grade Mapping for Side 1 Grade 1
62.1.2 = 2 Grade Mapping for Side 1 Grade 2
62.1.3 = 3 Grade Mapping for Side 1 Grade 3
62.1.4 = 4 Grade Mapping for Side 1 Grade 4
62.1.5 = 5 Grade Mapping for Side 1 Grade 5

62.2.1 = 1 Grade Mapping for Side 2 Grade 1
62.2.2 = 2 Grade Mapping for Side 2 Grade 2
62.2.3 = 3 Grade Mapping for Side 2 Grade 3
62.2.4 = 4 Grade Mapping for Side 2 Grade 4
62.2.5 = 5 Grade Mapping for Side 2 Grade 5

If VR installed (grade 1-4 VR, grade 5 diesel):

75.1 = 1 grade 1 VR
75.2 = 1 grade 2 VR
75.3 = 1 grade 3 VR
75.4 = 0 grade 4 default
75.5 = 1 grade 5 = grade 4 VR
75.6 = 2 grade 6 = grade 5 Diesel

Flow rate for VR

80. side 1 or 2, grade 1 = 38 VR
80. side 1 or 2, grade 2 = 38 VR
80. side 1 or 2, grade 3 = 38 VR
80. side 1 or 2, grade 4 = 38 VR
80. side 1 or 2, grade 5 = 40 Diesel grade 5
80. side 1 or 2, grade 6 = 40

If needed 2-Wire Corporate Protocol

24 = 1 (2 = Stand Alone)
40.2 = 1 (Baud Rate 5787)

59 = 2 reset log files and reboot. To be done at end of Programming.

Display Links:

SK700-2:

Side1 Link in A3, **Side2** Link in A0 and A3. (If T928A1xx 1 hose Island Oriented **Side2** Link in A1 + A3)

SK700 5 Grade PPU Display Links:

Side1 PPU Display no Links
Side2 PPU Display Link in A0

Horizon:

Side1 No Link in A0 – A3, **Side2** Link in A0

Frontier 1 Product:

Side1 Display Link in A3
Side2 Display Link in A1 + A3

Frontier 2 Product:

Side1 Left Display (Grade1) Link in A3, Right Display (Grade2) Links in A0 + A3
Side2 Right Display (Grade1) Links in A1 + A3, Left Display (Grade2) Link in A0, A1 + A3

Endura

If Remote Display
Internal Display No Links, Remote Display Link in A1

Display Links with Multi Media Display:
SK700-2:

Side1 No Links in E1 – E3, **Side2** Link in E1

Horizon:

Side1 Horizon Display Link in A1, MM Display no Links in E1 – E3
Side2 Horizon Display Links in A0 and A1, MM Display Link in E1

APOLLO Totalizer Addresses and Link Positions (connected to Display Bus)

Left Totalizer Board	Address 5, Link in A0 + A2
Middle Totalizer Board	Address 9, Link in A0 + A3
Right Totalizer Board	Address 6, Link in A1 + A2

Special USB Stick: (DQ48227-002, has to be a SanDisk with at least 4GB Memory, others may not work reliable)
- To get Configuration File from Pump it has to have a Folder "ApolloConfig" with the latest .pag file in it.
- To send the Latest Software to the Pump it has to have a Folder "ApolloExe" with the latest software .exe file in it

Send the Config File to the Pump:

- Put Config File "Result.dat" in Folder "ApolloConfig" as "Result.pas"
- Move switch to "**Cal**" position, Insert Special USB Stick into USB socket

- Press "**2**" on Keypad, Led near USB should turn RED, after few seconds display shows "**Store Config**"
  After reboot, Security switch to "Normal". Pump should have the new Config File.

Insert USB Press 8 on keypad
to get Config, put in laptop and
rename Result.Dat to Result.Pas then
put in pump to upload software

6089

Start 13-7-18 - also for Jeanette