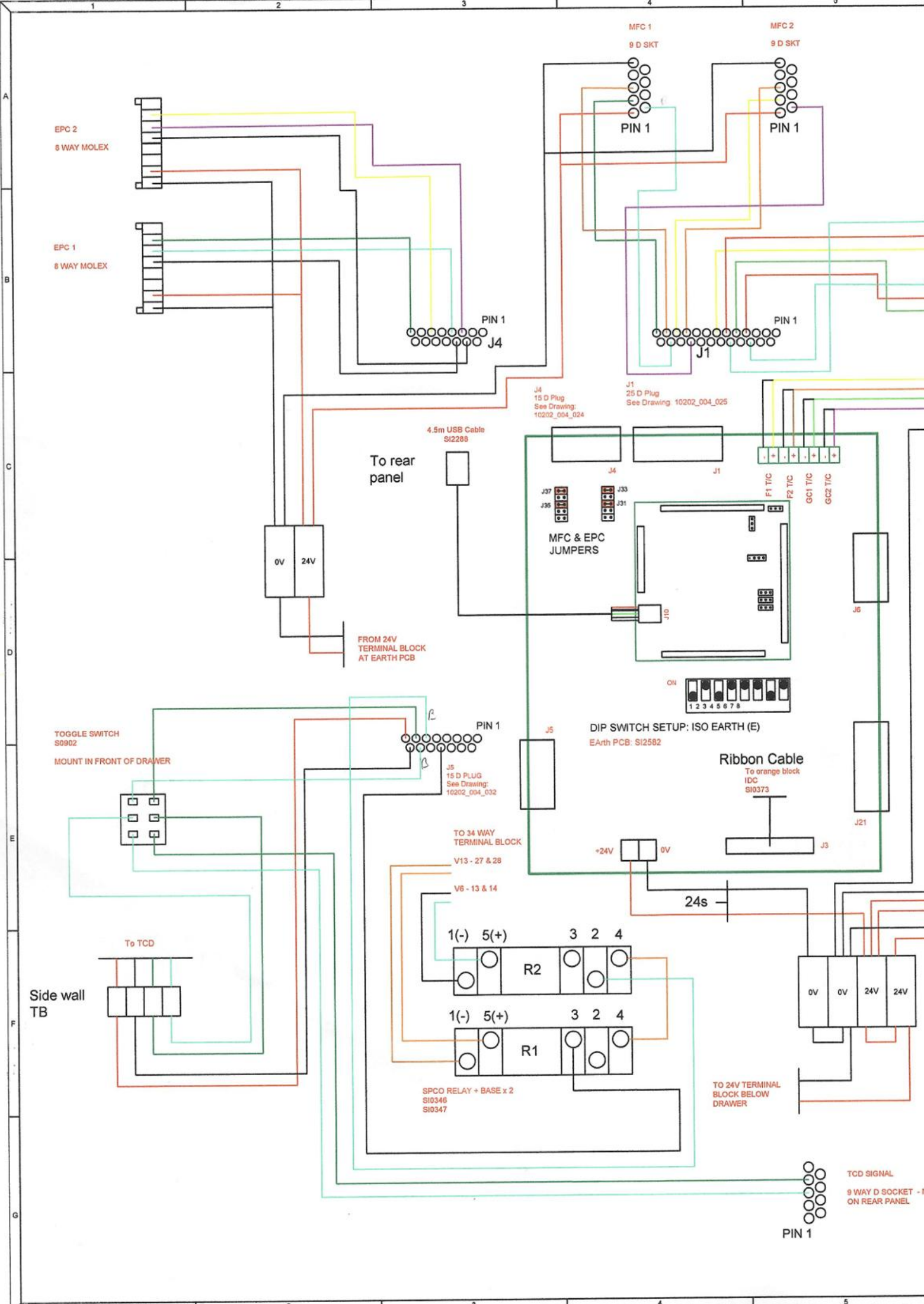




EPC 2
8 WAY MOLEX

EPC 1
8 WAY MOLEX

MFC 1
9 D SKT

MFC 2
9 D SKT

PIN 1

PIN 1

PIN 1
J4

PIN 1
J1

J4
15 D Plug
See Drawing:
10202_004_024

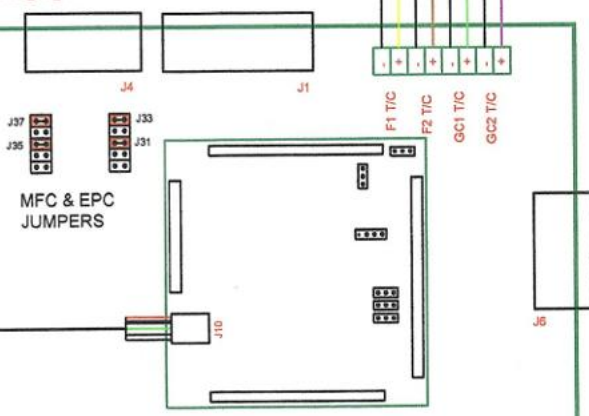
J1
25 D Plug
See Drawing: 10202_004_025

4.5m USB Cable
SI2288

To rear
panel

0V 24V

FROM 24V
TERMINAL BLOCK
AT EARTH PCB



MFC & EPC
JUMPERS

ON
1 2 3 4 5 6 7 8

TOGGLE SWITCH
S0902
MOUNT IN FRONT OF DRAWER

PIN 1
J5
15 D PLUG
See Drawing:
10202_004_032

DIP SWITCH SETUP: ISO EARTH (E)
Earth PCB: SI2582

Ribbon Cable

To orange block
IDC
SI0373

TO 34 WAY
TERMINAL BLOCK
V13 - 27 & 28

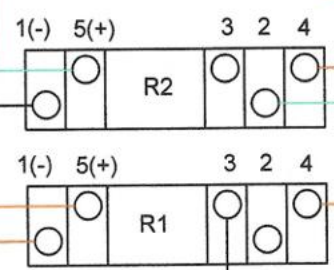
V6 - 13 & 14

+24V 0V

24s

Side wall
TB

To TCD



SPDO RELAY + BASE x 2
SI0346
SI0347

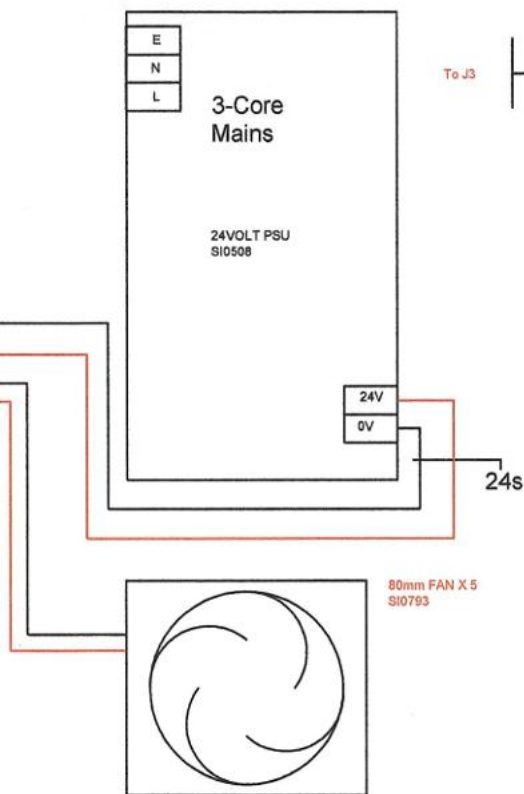
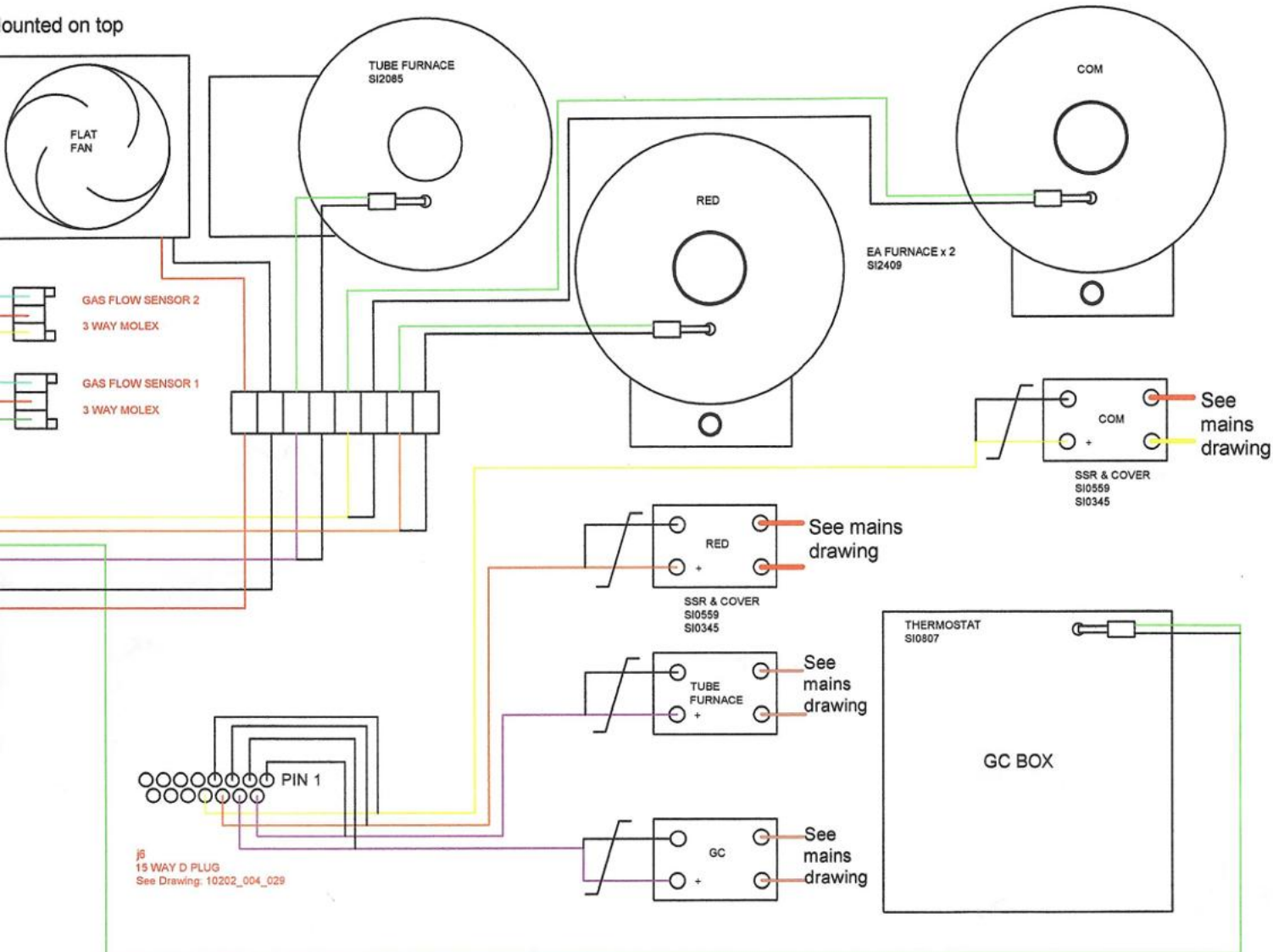
TO 24V TERMINAL
BLOCK BELOW
DRAWER

0V 0V 24V 24V

PIN 1

TCD SIGNAL
9 WAY D SOCKET - MC
ON REAR PANEL

ounted on top



Vehre 34TB No.	
0	1,2
1	3,4
2	5,6
3	7,8
4	9,10
5	11,12
6	13,14
7	15,16
8	17,18
9	19,20
10	21,22
11	23,24
12	25,26
13	27,28
14	29,30
15	31,32

34 way ribbon cable

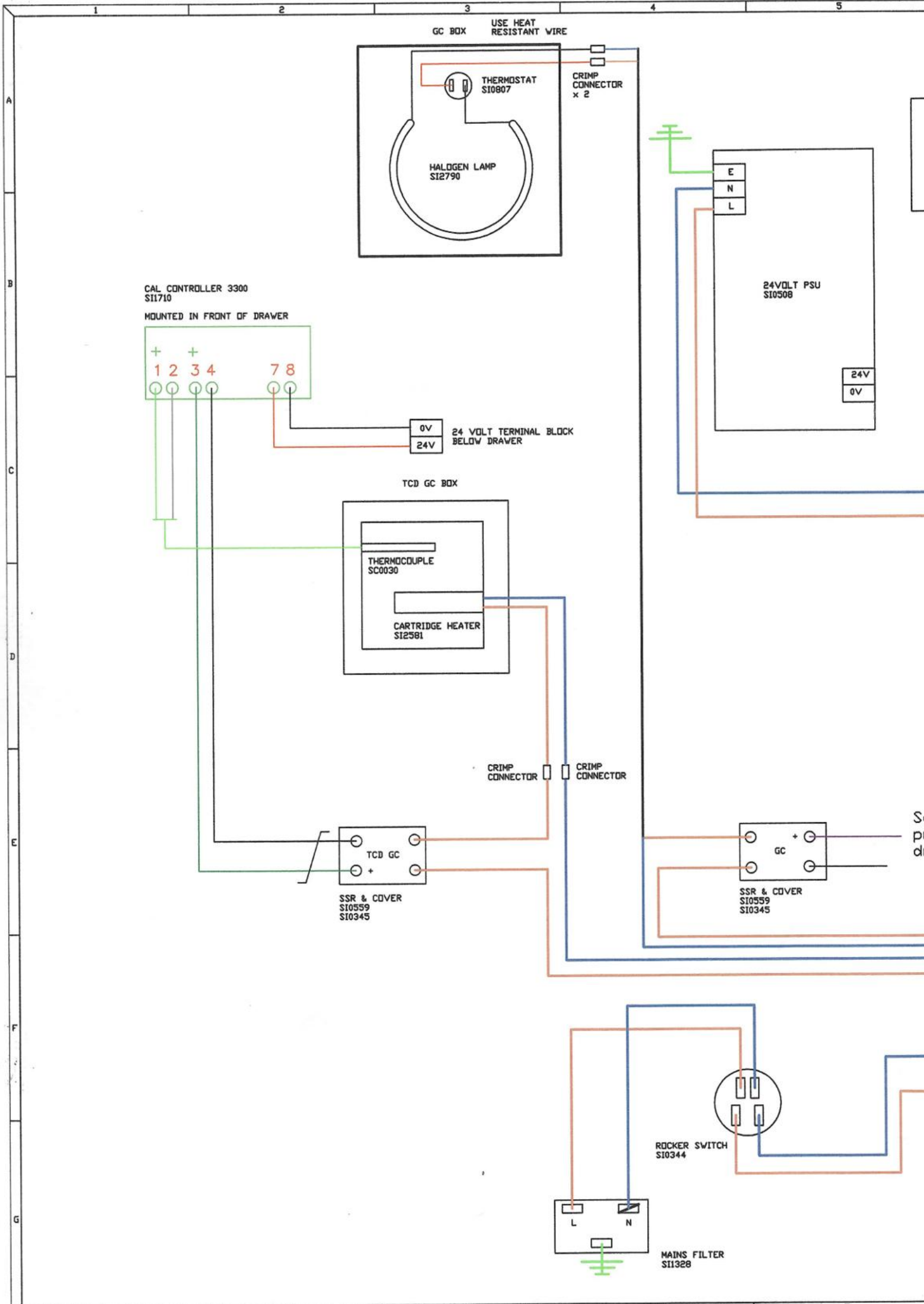
J3 on main PCB



IN 1377
INITIAL: SW
DATE: 18/02/2026

All wires 16s unless stated

ID	ADDING MORE DETAILS TO DRAWING	04-01-2021	C1
DW	APPROVED	05-12-2019	C
MOD	ISSUED BY	DESCRIPTION	DATE REV. No.
REMOVE ALL BURRS & SHARP EDGES		DO NOT SCALE	
MATL.	ALL DIMENSIONS IN MILLIMETRES		THIRD ANGLE
FINISH	TOLERANCES UNLESS OTHERWISE STATED		DRG. SIZE A1
		±0.15° ANGULAR 0.00 ±0.1	SCALE
		SURFACE FINISH 1.6 0.0 ±0.2	
TITLE		ISO EARTH+ WIRING - PREP	DRG No
		SERCON LTD	10202-004-031



GC BOX
USE HEAT
RESISTANT WIRE

THERMOSTAT
SI0807

HALOGEN LAMP
SI2790

CRIMP
CONNECTOR
x 2

CAL CONTROLLER 3300
SI1710
MOUNTED IN FRONT OF DRAWER

+ +
1 2 3 4 7 8

0V 24V
24 VOLT TERMINAL BLOCK
BELOW DRAWER

TCD GC BOX

THERMOCOUPLE
SC0030

CARTRIDGE HEATER
SI2581

CRIMP
CONNECTOR

CRIMP
CONNECTOR

TCD GC
+
SSR & COVER
SI0559
SI0345

E
N
L

24VOLT PSU
SI0508

24V
0V

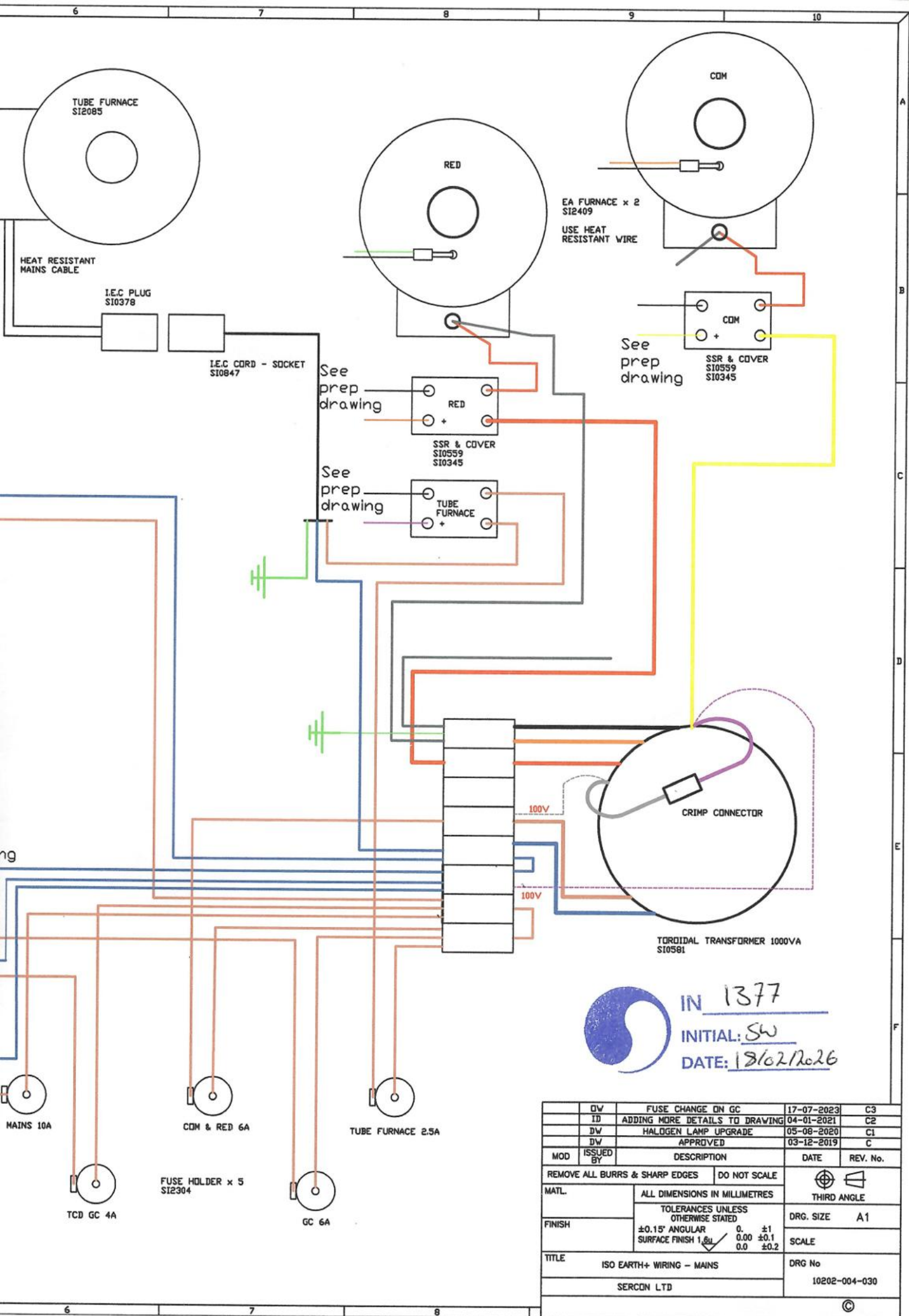
GC +
SSR & COVER
SI0559
SI0345

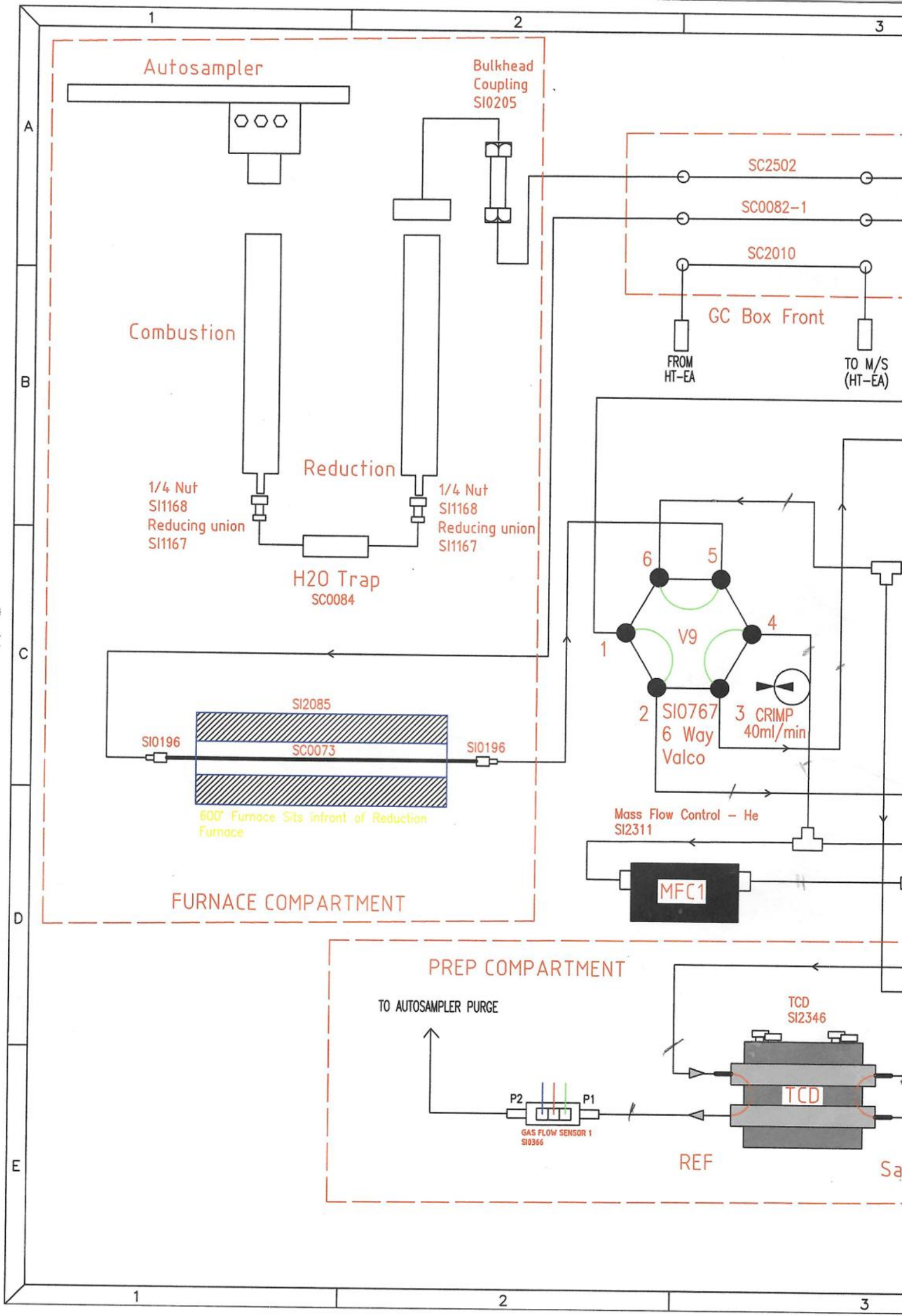
Se
pr
dr

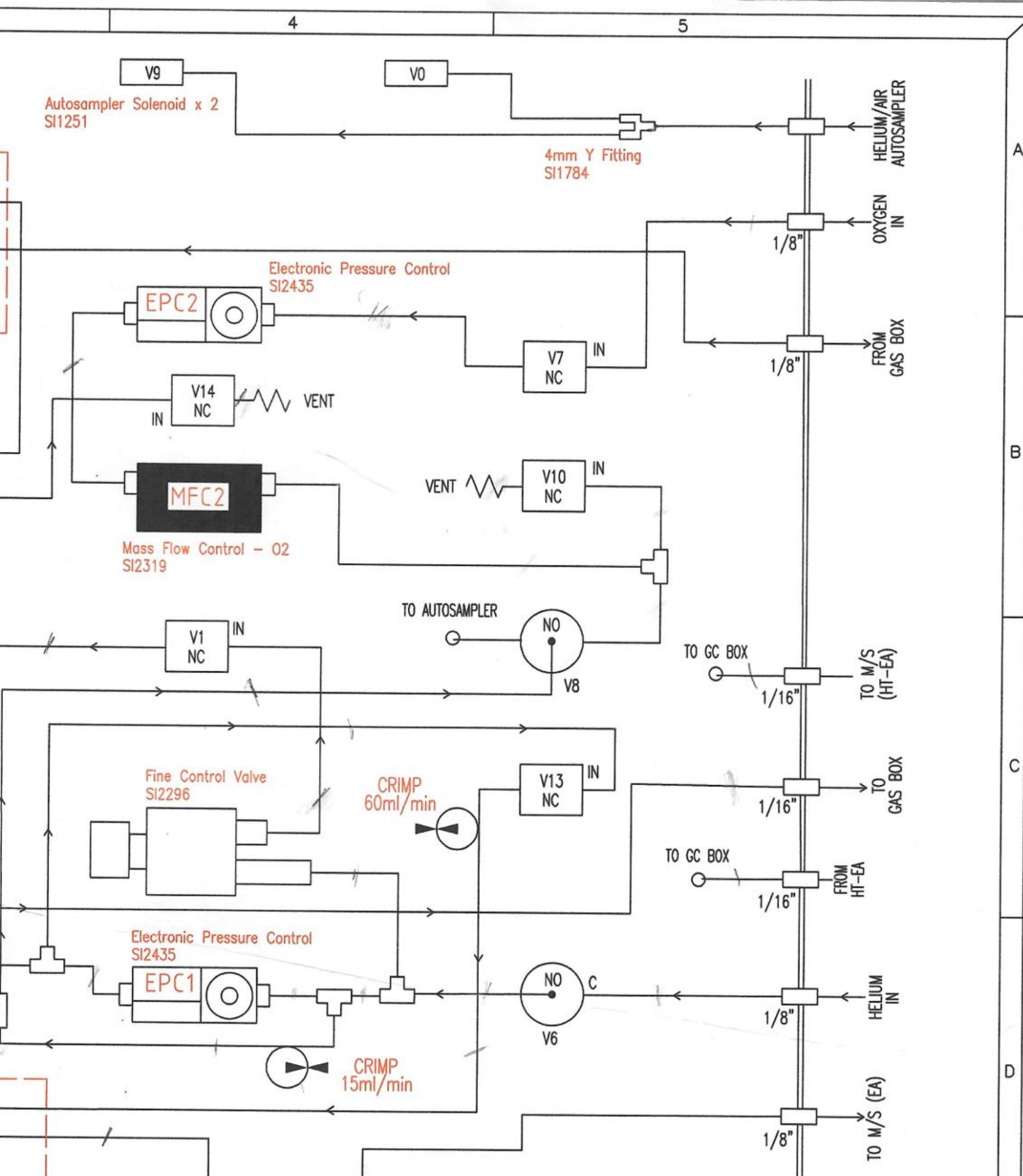
ROCKER SWITCH
SI0344

L N

MAINS FILTER
SI1328







ple

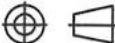
P2 P1

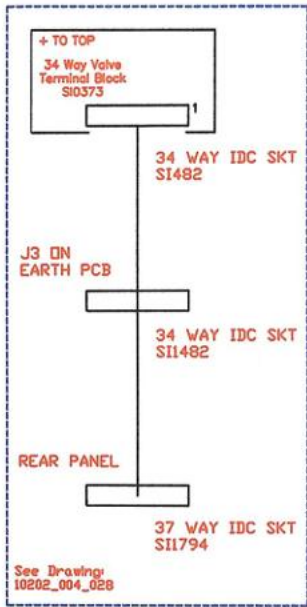
GAS FLOW SENSOR 2
SI0366

IN 1377

INITIAL: SW

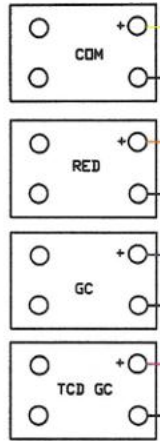
DATE: 18/02/2026

ID	SWAPPED GAS FLOW SENSORS	28/06/21	C3
ID	ADJUSTMENTS TO MFC1 & V9	29/04/21	C2
ID	ADDED MORE DETAILS TO DRAWING	04/01/21	C1
MOC	ISSUED FOR MANUFACTURE	06/12/19	C
ISSUED BY	DESCRIPTION	DATE	REV. No.
REMOVE ALL BURRS & SHARP EDGES		DO NOT SCALE	
MATL.	ALL DIMENSIONS IN MILLIMETERS	 THIRD ANGLE	
FINISH	TOLERANCES UNLESS OTHERWISE STATED		
DRN	±0.15° ANGULAR 0.0 ±0.5 SURFACE FINISH 1.6μ 0.0 ±0.1 0.00 ±0.05	DRG SIZE A3	SHEET
TITLE		SCALE	DRN
ISO EARTH+ PLUMBING		DRG No	
STRICTLY CONFIDENTIAL COPYRIGHT SERCON LTD		10202/004/035	

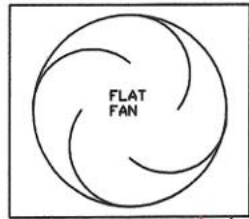


Valve 34TB No.

0	1,2
1	3,4
2	5,6
3	7,8
4	9,10
5	11,12
6	13,14
7	15,16
8	17,18
9	19,20
10	21,22
11	23,24
12	25,26
13	27,28
14	29,30
14	31,32



SSR & COVER
S10559
S10345



TO 24V TB

J6
15 WAY D PLUG
See Drawing: 10202_004_022

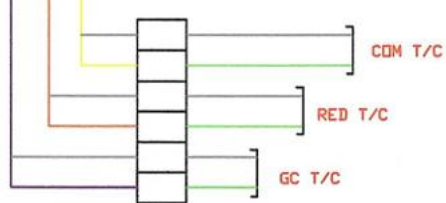


EARTH PCB: S12582

DIP SWITCH SETU



TO TCD
TERMINAL
BLOCK



TERMINAL BLOCK MOUNTED
TO THE FRONT OF THE
VALVE PANEL

FLOW SENS DIAGRAM
WITH SOLDER 3 WAY
ORIENTATION.

FLOW 2
3 WAY MOLEX

FLOW 1
3 WAY MOLEX

VIEW FROM TOP OF
CRIMP ENTRY.

MFC 2
9 D SKT

PIN 1

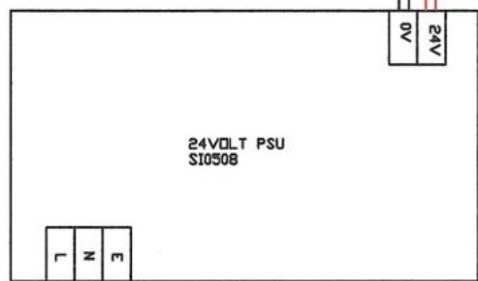
PIN 1



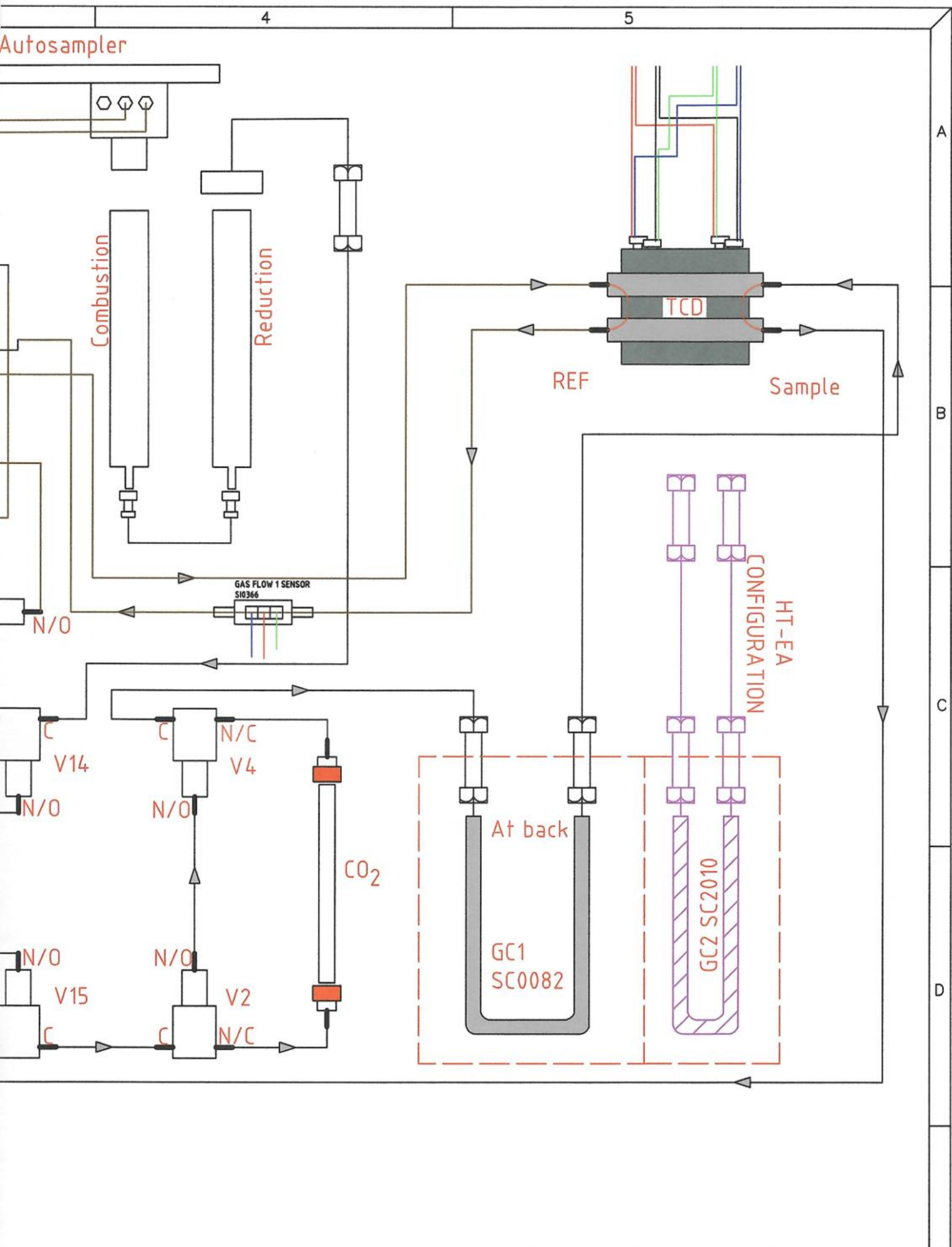
IN 1377

INITIAL: MR

DATE: 23/02/2020 TO EARTH PCB



TO FL



OW	P AND C LABEL ADDED	16/07/2024	C5
OW	BULKHEAD LABELLING ADDED	14/03/2024	C4
OW	GAS FLOW CHANGE	30/01/2024	034
JH	ADDED PURGE LINE	02/12/2021	C3
ISSUED BY	DESCRIPTION	DATE	REV. No.
ISO EARTH PLUMBING		DRG No 10202/004/034	
STRICTLY CONFIDENTIAL COPYRIGHT SERCON LTD			

A

B

C

D

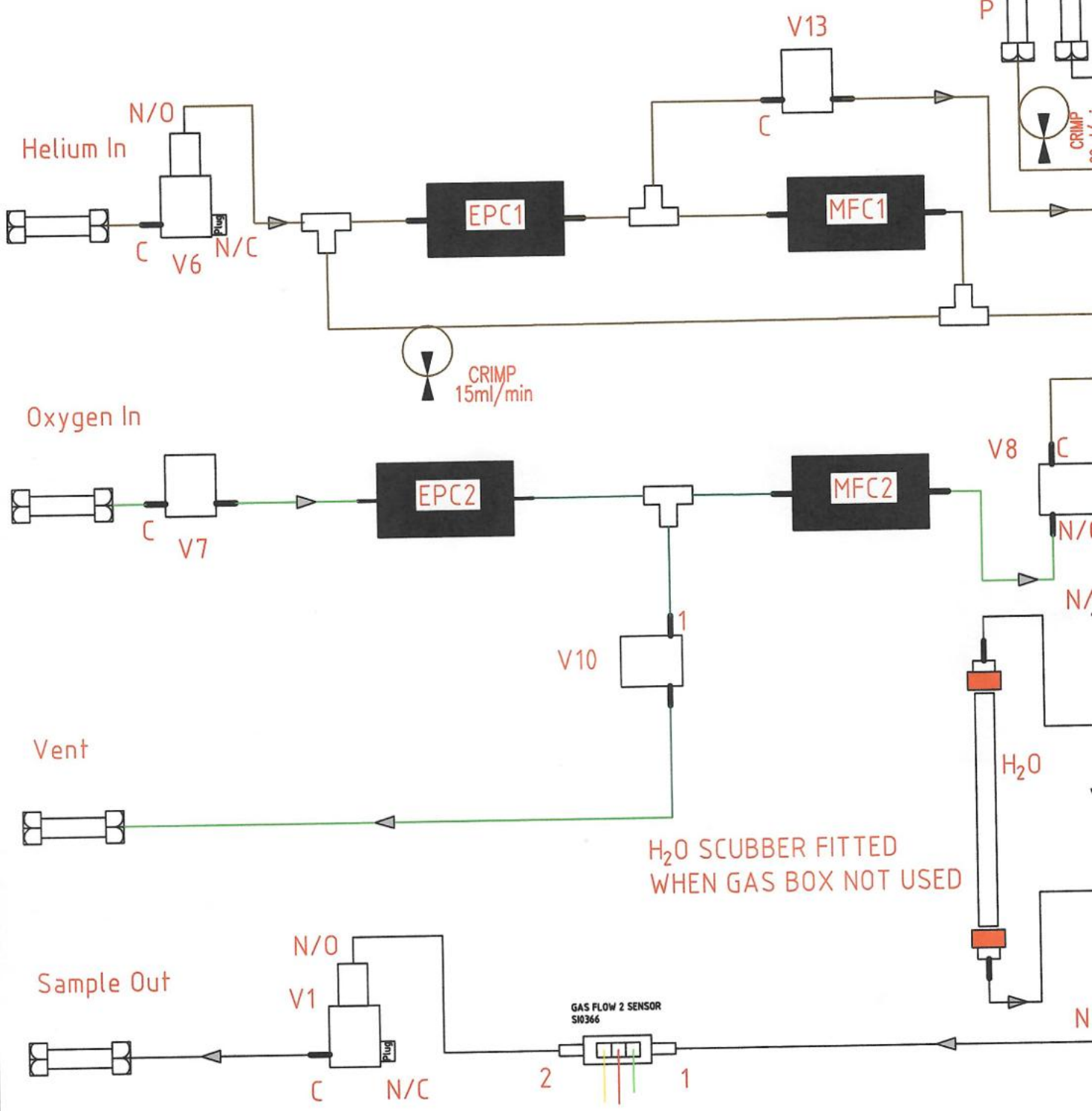
E

1

2

3

BULKHEAD LAYOUT
P C A B



IN IN1377
INITIAL: MR
DATE: 23/02/2020

To T/C TERMINALS ON
EARTH PCB

TERMINAL BLOCK MOUNTED
TO THE FRONT OF THE
VALVE PANEL

IEC PLUG x 3
SI0378

HEAT
RESISTANT
CABLE

CRIMP
CONNECTOR
x 2

THERMOSTAT
SI0807

HALOGEN LAMP
SI2790

M4x40mm STANDOFF
x4

GC BOX
USE HEAT
RESISTANT WIRE

IEC CORD - SOCKET x 3
SI0847

RED

COM

EA FURNACE x 2
SI2409

USE HEAT
RESISTANT WIRE

TCD GC

GC

FURNACES TCD GC
N L

THIS SECTION TO BE MOUNTED
AND WIRED HERE ON THE PANEL

FUSE HOLDER x 4
SI2304

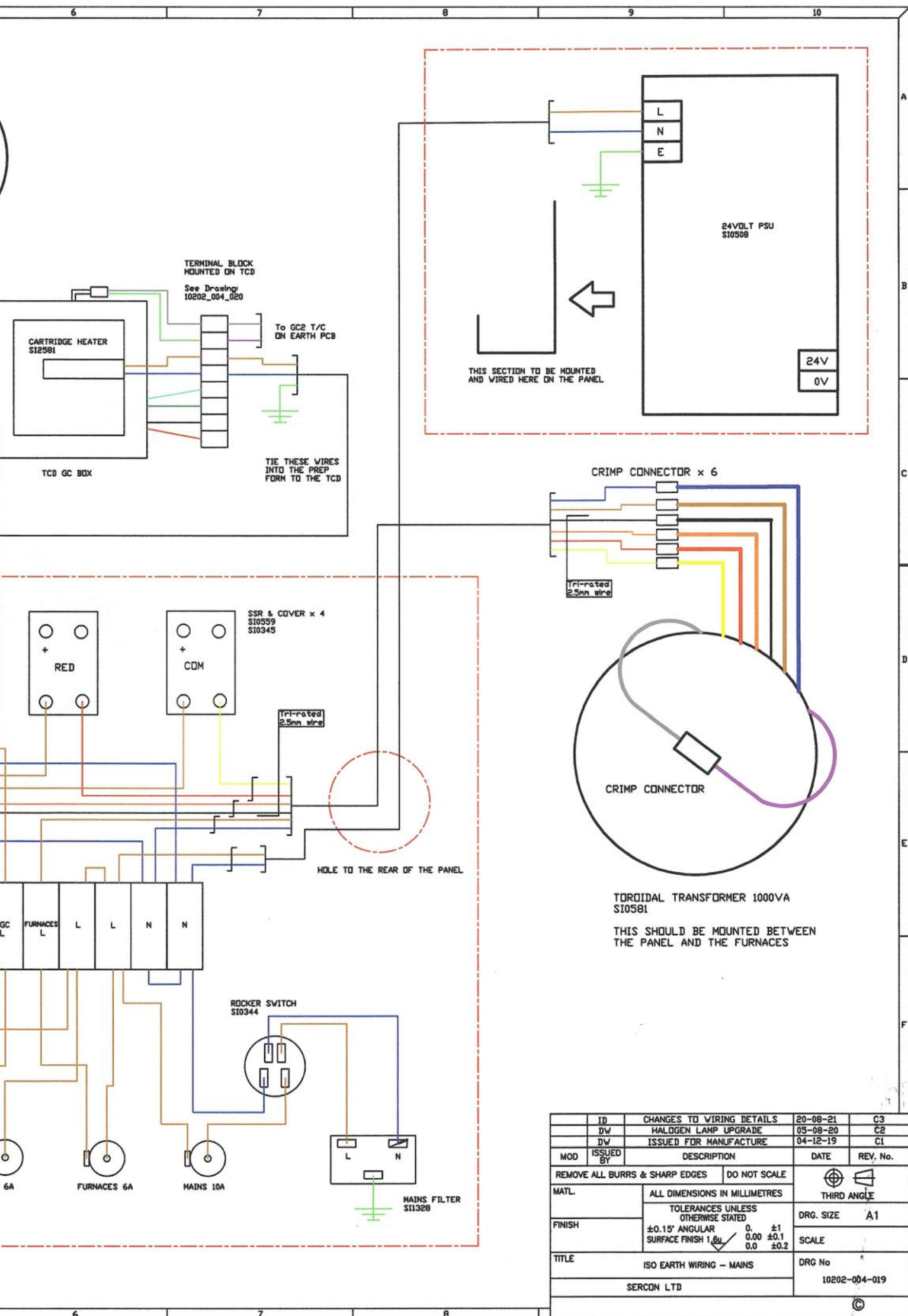
TCD GC 4A



IN ID1377

INITIAL: MR

DATE: 23/02/2026



	ID	CHANGES TO WIRING DETAILS	20-08-21	C3	
	DW	HALOGEN LAMP UPGRADE	05-08-20	C2	
	DW	ISSUED FOR MANUFACTURE	04-12-19	C1	
MOD	ISSUED BY	DESCRIPTION	DATE	REV. No.	
REMOVE ALL BURRS & SHARP EDGES		DO NOT SCALE			
MATERIAL		ALL DIMENSIONS IN MILLIMETRES			THIRD ANGLE
FINISH		TOLERANCES UNLESS OTHERWISE STATED ±0.15° ANGULAR 0. ±1 SURFACE FINISH 1.6μ 0.00 ±0.1 0.0 ±0.2			
TITLE		ISO EARTH WIRING – MAINS	SCALE		
			DRG No		
		SERCON LTD	10202-004-019		
©					

To T/C TERMINALS ON
EARTH PCB

TERMINAL BLOCK MOUNTED
TO THE FRONT OF THE
VALVE PANEL

M4x40mm STANDOFF
x4

GC BOX
USE HEAT
RESISTANT WIRE

THERMOSTAT
SI0807

HALOGEN LAMP
SI2790

IEC PLUG x 3
SI0378

HEAT
RESISTANT
CABLE

CRIMP
CONNECTOR
x 2

IEC CORD - SOCKET x 3
SI0847

EA FURNACE x 2
SI2409

USE HEAT
RESISTANT WIRE

RED

COM

TCD GC

GC

FURNACES TCD GC
N L

THIS SECTION TO BE MOUNTED
AND WIRED HERE ON THE PANEL

FUSE HOLDER x 4
SI2304

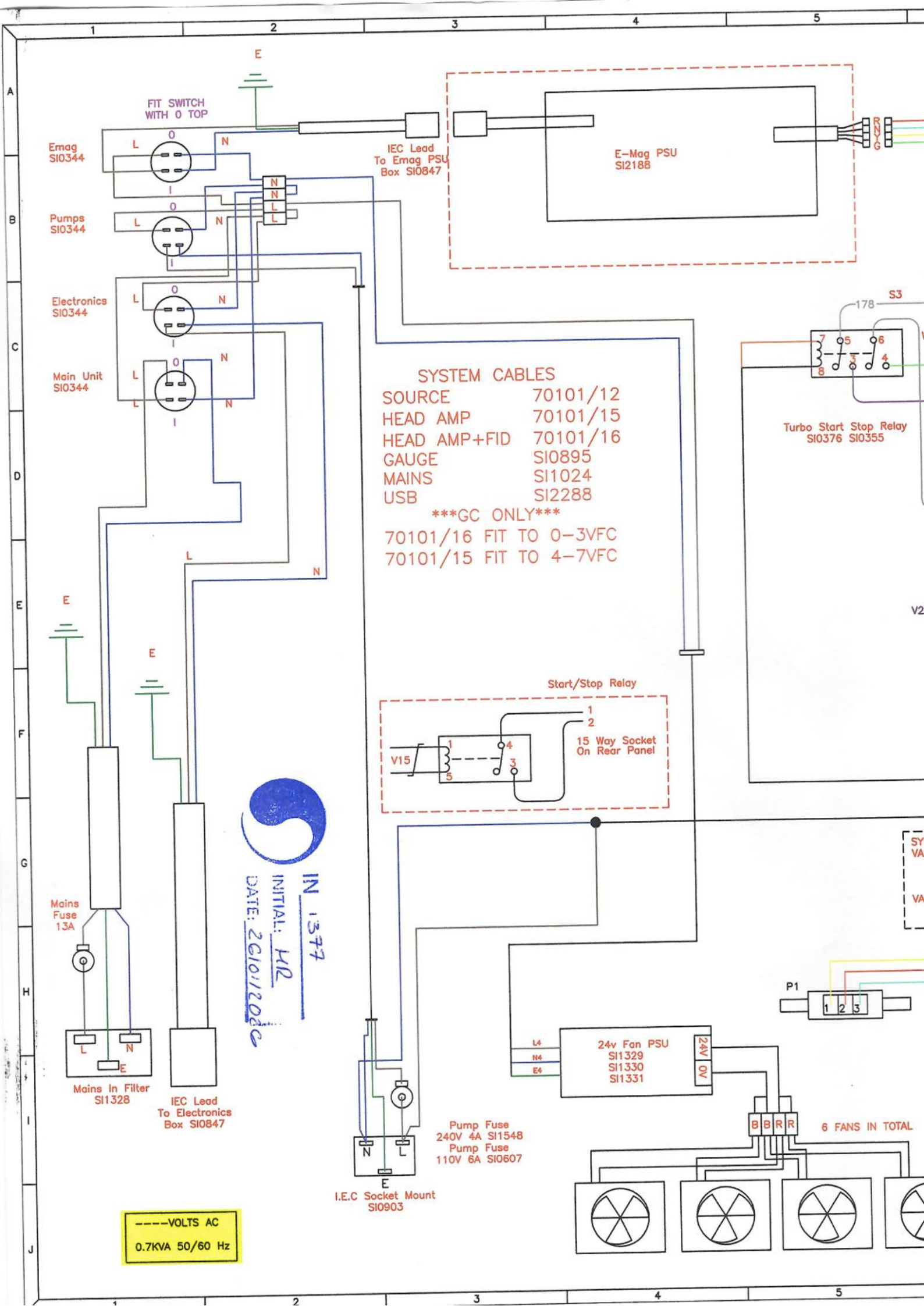
TCD GC 4A

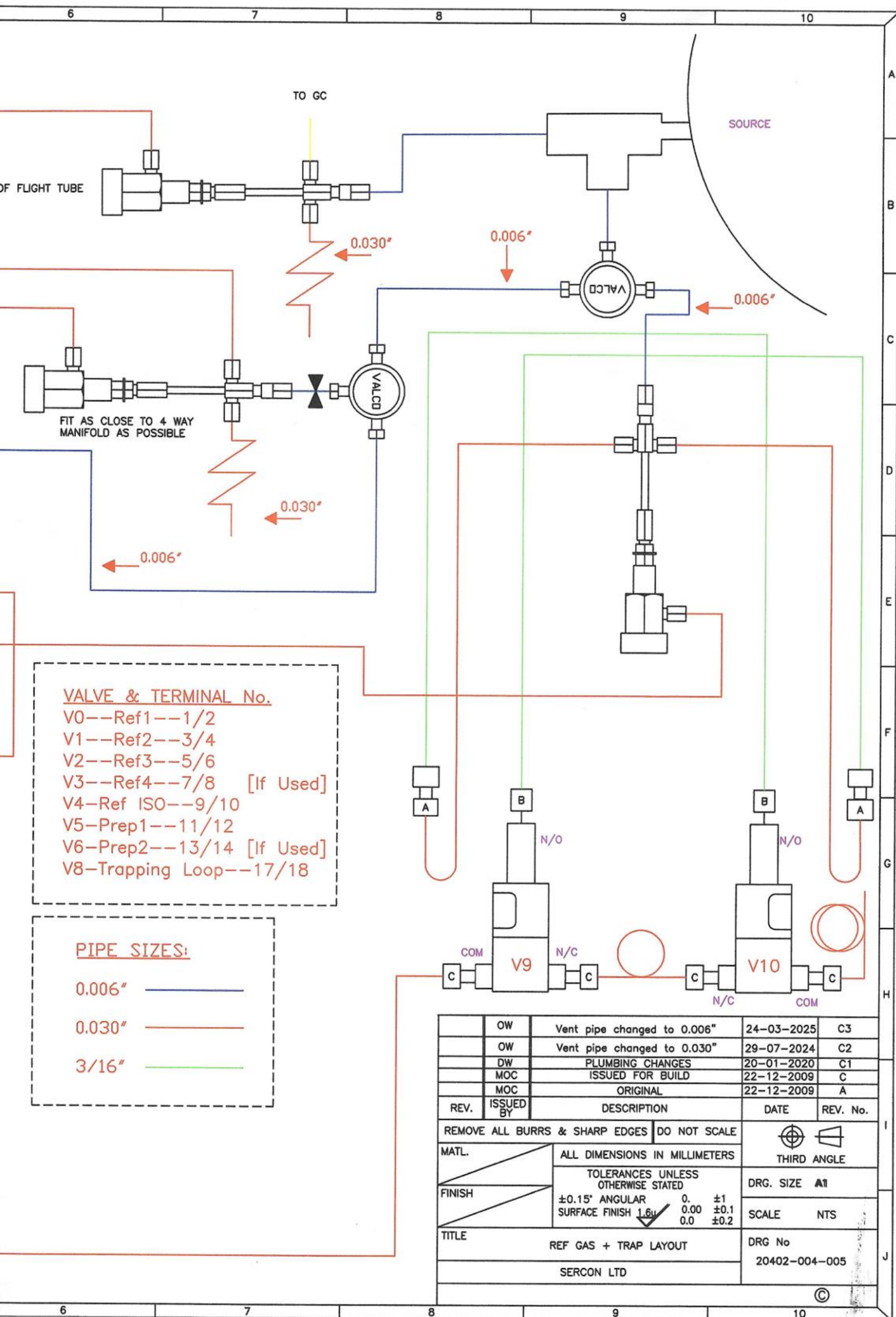


IN ID1377

INITIAL: MR

DATE: 23/02/2026







LEAVE ROOM ON
PIPE FOR CRIMP

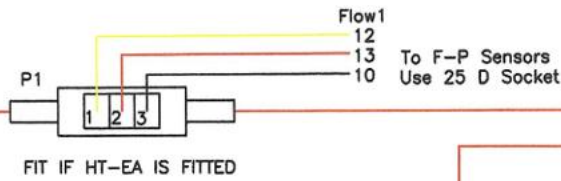


IN 1377

INITIAL: HQ

DATE: 26/01/2024

FIT ON TOP
IF GC FITTE



FIT AS CLOSE TO 4 WAY
MANIFOLD AS POSSIBLE

0.030"

0.006"

0.006"

0.006"

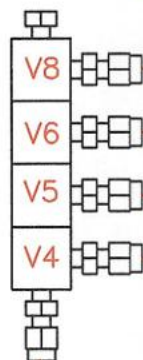
REF 1 N2

REF 2 CO2

REF 3 HD

He

Aux



10-15ml/min

1

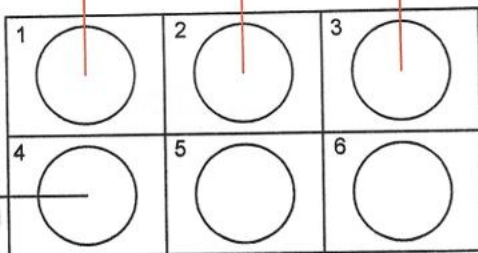
2

3

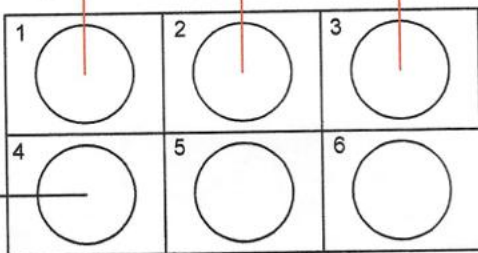
4

5

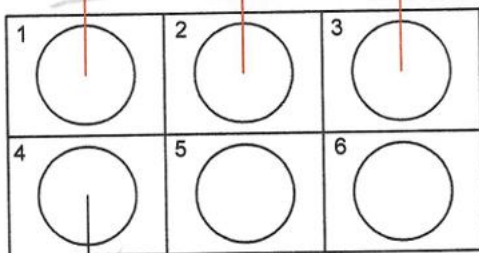
DRIVER
MAINS
CONNECTION
Z - 150



DRIVER
MAINS
CONNECTION
Y - 300



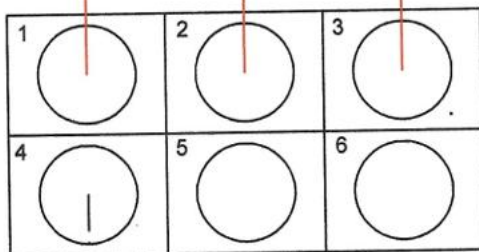
DRIVER
MAINS
CONNECTION
X - 450

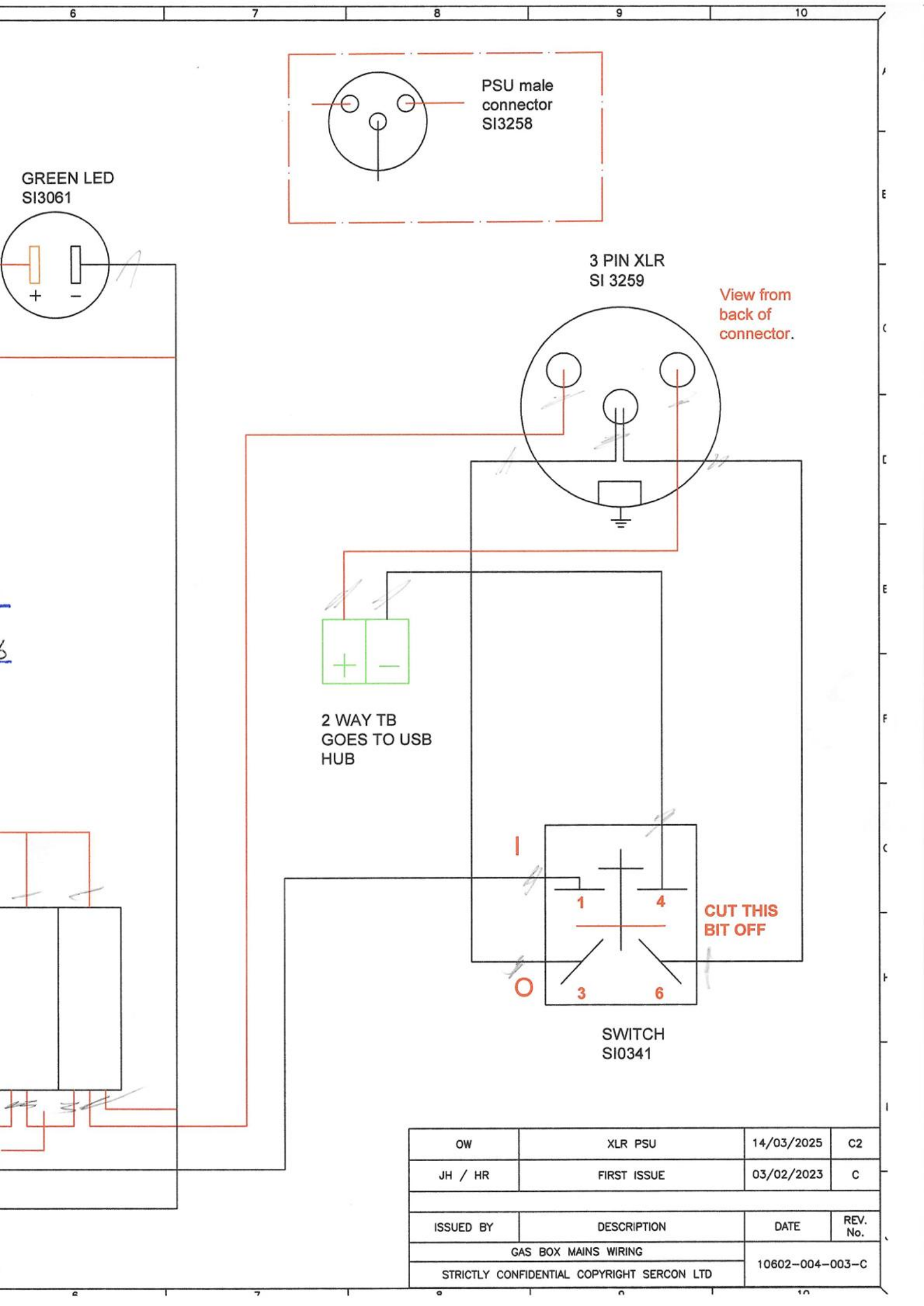


IN 1378

INITIAL: SW

DATE: 24/3/





GREEN LED
SI3061

PSU male
connector
SI3258

3 PIN XLR
SI 3259

View from
back of
connector.

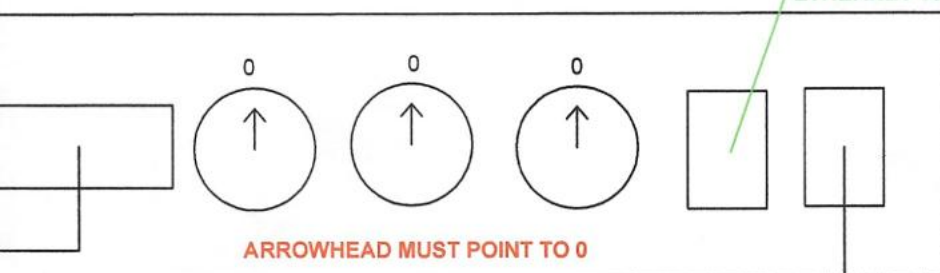
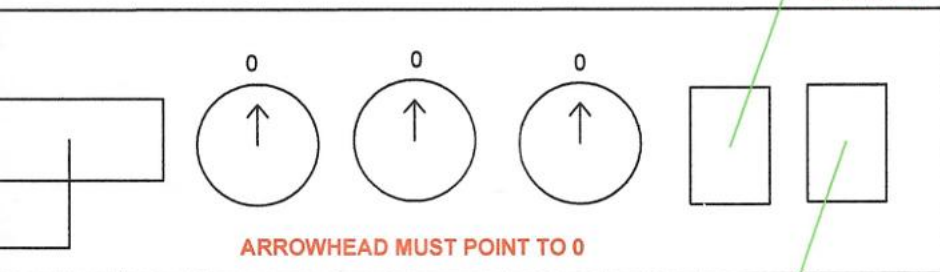
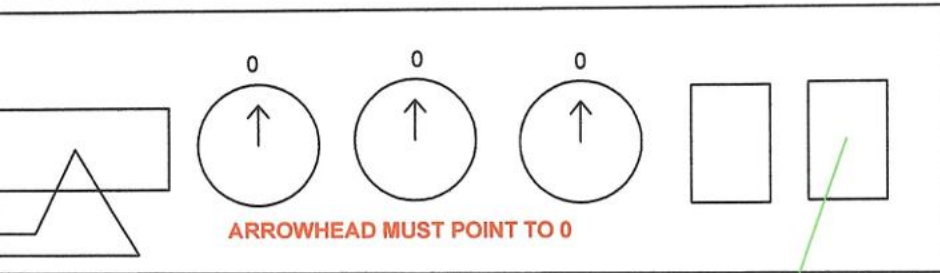
2 WAY TB
GOES TO USB
HUB

CUT THIS
BIT OFF

SWITCH
SI0341

OW	XLR PSU	14/03/2025	C2
JH / HR	FIRST ISSUE	03/02/2023	C
ISSUED BY		DESCRIPTION	DATE
GAS BOX MAINS WIRING			REV. No.
STRICTLY CONFIDENTIAL COPYRIGHT SERCON LTD		10602-004-003-C	

SYSTEM. SEE THE VERSA CONNECTIONS DRAWING 60101-003-001-C. 'P'
ECT TO THE TRIPLE VERSA CONNECTIONS AT THE FRONT OF THE NEEDLE
A GREEN JUMP CABLE IS REQUIRED TO LINK IN THE SAME WAY.



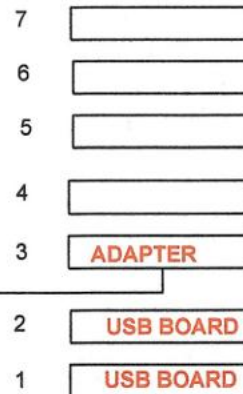
ETHERNET 150MM CABLE SI3043

ETHERNET 150MM CABLE SI3043

RJ45 ETHERNET CABLE
SI3042



7 PORT USB HUB
SI3039



0

USB A TO USB B CABLE

THROUGH GLAND
TO PC



IN 378
INITIAL: SW
DATE: 24/3/26

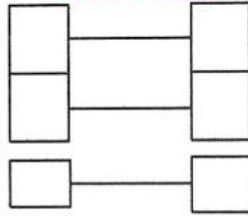
JH / HR	FIRST ISSUE	03/02/2023	C
ISSUED BY	DESCRIPTION	DATE	REV. No.
	GAS BOX SIGNAL WIRING		
	STRICTLY CONFIDENTIAL COPYRIGHT SERCON LTD	10602_004_004_C	

THIS IS THE POSITION FOR THE EXTRA 150 'P' DRIVER WHEN USED WITH A MICRO CARB AXIS CONNECTION USES THE SAME SPLIT CABLE AS THE 'Z' AXIS. THESE CABLES COME WITH A 150 'P' DRIVER ARM AS SEEN ON THE DRAWING MENTIONED ABOVE. ARROWS MUST STILL POINT TO '0'

Z AXIS CONNECTORS ARE LOCATED AT THE TOP OF THE VERSA ON THE TOP OF THE NEEDLE ARM.

EACH OF THE 3 PLUGS WILL ONLY FIT ONE OF THE VERSA SOCKETS

Z AXIS WIRES



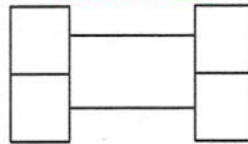
**DRIVER Z
150
SI2971**

**MAINS IN
SEE MAINS
DIAGRAM**

Y AXIS CONNECTORS ARE LOCATED AT THE BACK RIGHT OF THE VERSA NEAR THE BASE.

EACH OF THE 2 PLUGS WILL ONLY FIT ONE OF THE VERSA SOCKETS

Y AXIS WIRES



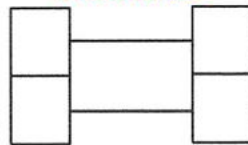
**DRIVER Y
300
SI2973**

**MAINS IN
SEE MAINS
DIAGRAM**

X AXIS CONNECTORS ARE LOCATED AT THE BACK RIGHT OF THE VERSA HALF WAY UP THE UNIT.

EACH OF THE 2 PLUGS WILL ONLY FIT ONE OF THE VERSA SOCKETS

X AXIS WIRES

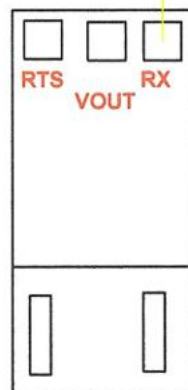


**DRIVER X
450
SI3012**

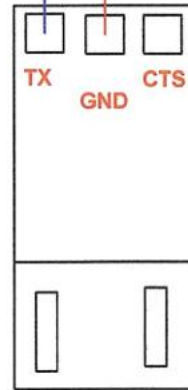
**MAINS IN
SEE MAINS
DIAGRAM**

PRINT THE LAST 4 DIGITS OF THE MAC ADDRESS ON THE DRIVERS (EG. 'DA-56') WITH THE AXIS NAME (X, Y OR Z) ONTO A LABEL, AND STICK ON THE TOP OF THE GAS BOX.

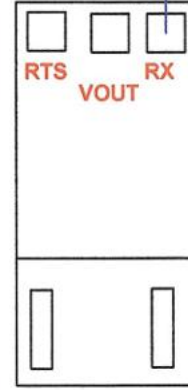
7S WIRES



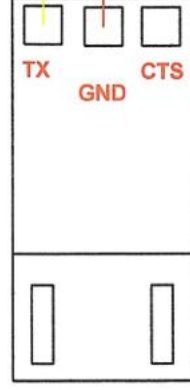
**USB BOARD 1
SIDE 1**



**USB BOARD 1
SIDE 2**



**USB BOARD 2
SIDE 1**



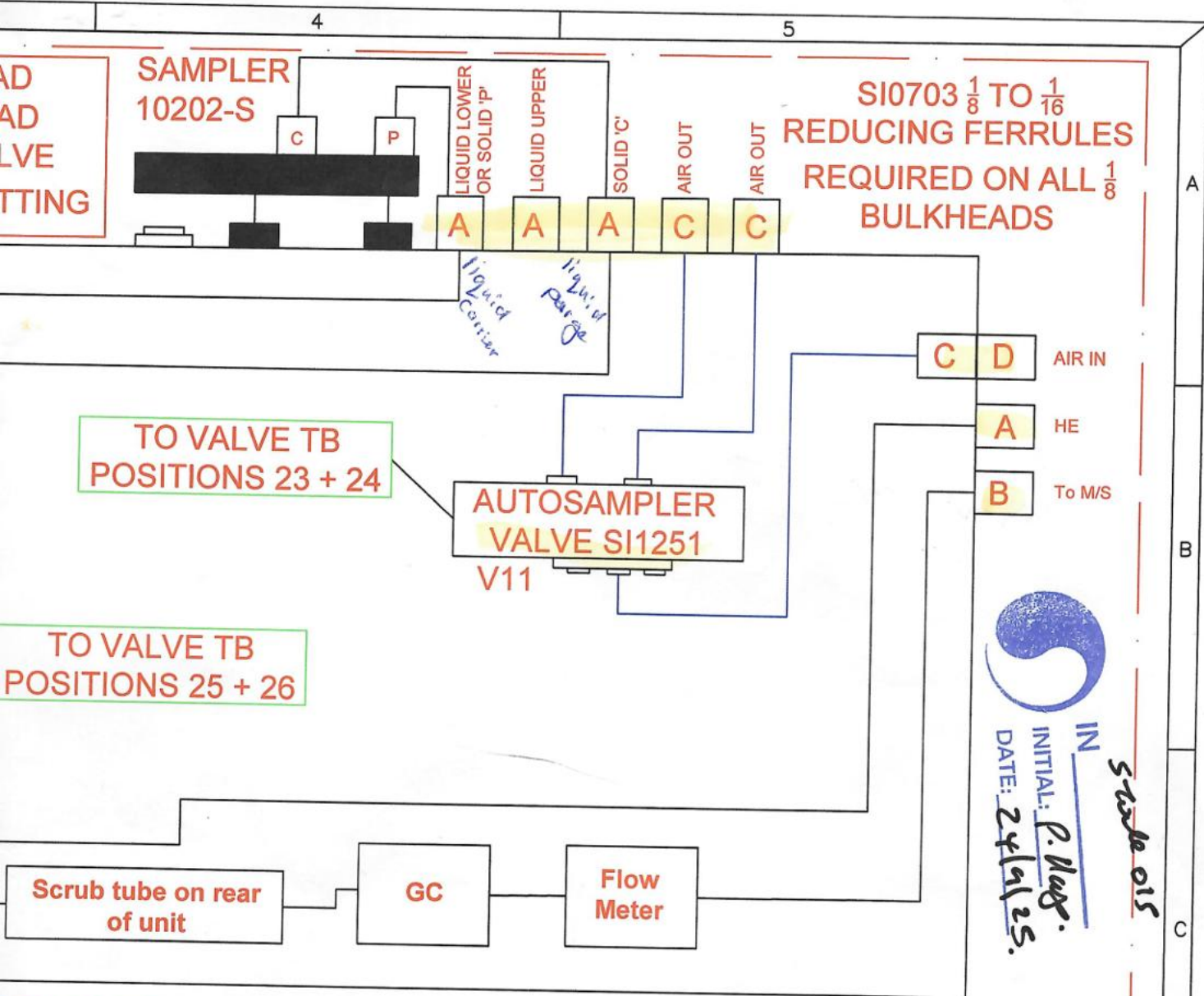
**USB BOARD 2
SIDE 2**

PLUG INTO PORT 1 ON USB HUB

PLUG INTO PORT 2 ON USB HUB

**RS232 PCB
SI3062**

**RS232 PCB
SI3062**



BULKHEAD CONNECTIONS

SC0085 RED CAP KIT
SC2495 SCUBBER TUBE
(LOCATED CENTRALLY AT THE
BACK OF THE UNIT ON THE TOP)

BACK PANEL TO INSIDE
UNIT VIA $\frac{1}{16}$ BULKHEAD,
THEN CONNECT TO BACK
OF 'EA'



VIEW FROM REAR

PIPE TO FURNACE
COMPARTMENT $\frac{1}{16}$
BULKHEAD - ROUTES TO 'EA'
BULKHEAD THROUGH
SCRUBBER TUBE

OW	GC BOX AND FLOW METER ADDED	10-7-24	C3
OW	SCRUB TUBE PATH UPDATE	9-1-24	C2
JH	REDESIGNED + UPDATED	26-10-22	C1
ID	ISSUED FOR MANUFACTURE	8-09-21	C
ISSUED BY	DESCRIPTION	DATE	REV. No.
REMOVE ALL BURRS & SHARP EDGES		DO NOT SCALE	
MATL.	ALL DIMENSIONS IN MILLIMETRES		THIRD ANGLE
FINISH	TOLERANCES UNLESS OTHERWISE STATED		DRG. SIZE A4
	±0.15° ANGULAR	0. ±0.5	SCALE
	SURFACE FINISH 1.6u	0.0 ±0.1	
		0.00 ±0.05	
TITLE HT-EA PLUMBING		DRG No	11501-004-004-C2
STRICTLY CONFIDENTIAL COPYRIGHT SERCON LTD			

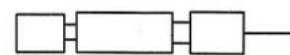
A.

B



D

E

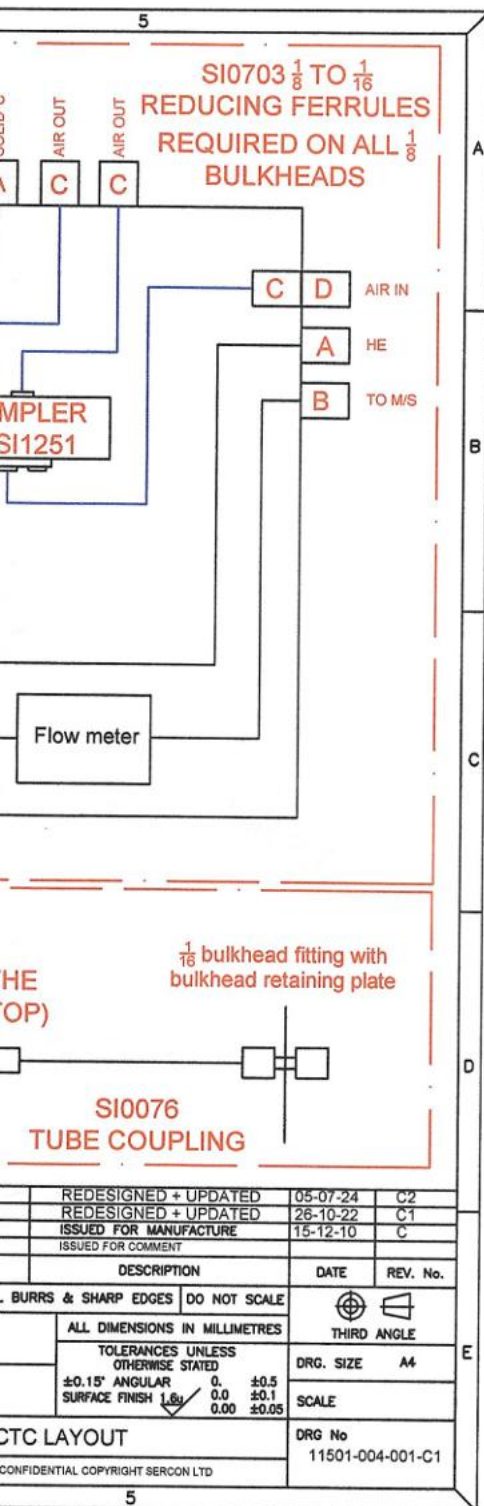


A diagram showing a cable with a connector at the top. The connector is a rectangular block with a smaller rectangular protrusion on its bottom side. A vertical line representing the cable extends downwards from the protrusion, then curves 90 degrees to the right, ending in a horizontal line.

1

2

3



IN 1377
INITIAL: SW
DATE: 1/4/26



