

SP1900 TMS Fault Diagnostic Dashboard Manual

1. Accessing the Dashboard

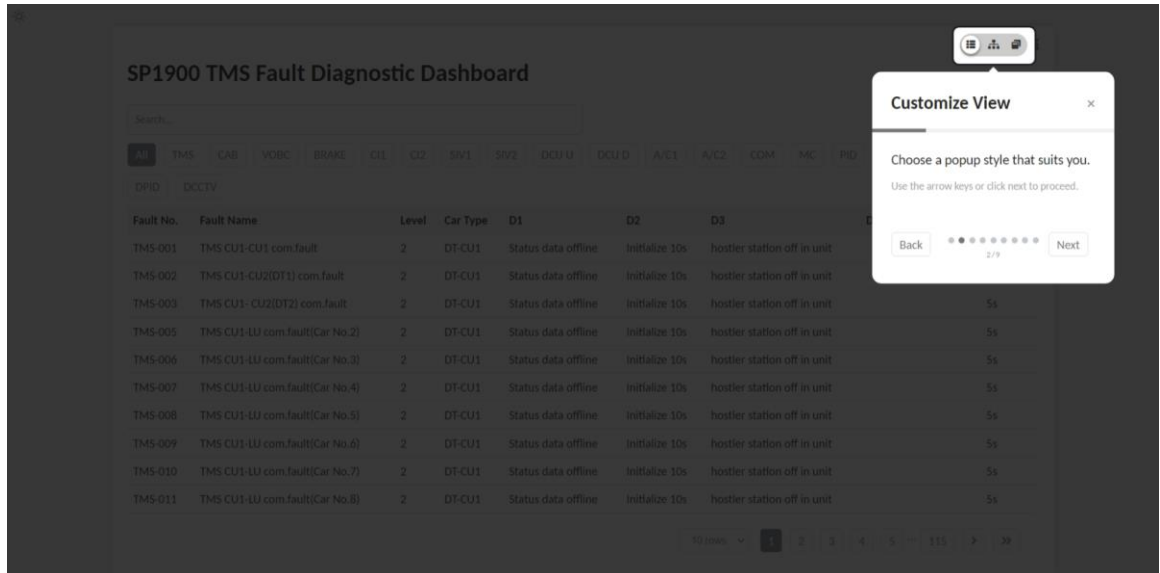
- URL: <https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/>

QR CODE:



2. Using the Dashboard

- Customize View



The screenshot displays the SP1900 TMS Fault Diagnostic Dashboard. At the top, there is a search bar and a navigation menu with tabs for TMS, CAB, VDBC, BRAKE, C1, C2, SW1, SW2, DCU1, DCU2, A/C1, A/C2, COM, MC, and RIG. Below the navigation menu, there are two sub-tabs: DPID and DCCTV. The main content area shows a table of faults with columns for Fault No., Fault Name, Level, Car Type, D1, D2, and D3. The table lists 11 faults, all with a Level of 2 and Car Type of DT-CU1. A 'Customize View' popup is open on the right side of the dashboard, prompting the user to choose a popup style (list, tree, page) and providing navigation buttons (Back, Next) and a progress indicator (2/9).

Fault No.	Fault Name	Level	Car Type	D1	D2	D3
TMS-001	TMS CU1-CU1 com.fault	2	DT-CU1	Status data offline	Initialize 10s	hostier station off in unit
TMS-002	TMS CU1-CU2(DT1) com.fault	2	DT-CU1	Status data offline	Initialize 10s	hostier station off in unit
TMS-003	TMS CU1-CU2(DT2) com.fault	2	DT-CU1	Status data offline	Initialize 10s	hostier station off in unit
TMS-005	TMS CU1-LU com.fault(Car No.2)	2	DT-CU1	Status data offline	Initialize 10s	hostier station off in unit
TMS-006	TMS CU1-LU com.fault(Car No.3)	2	DT-CU1	Status data offline	Initialize 10s	hostier station off in unit
TMS-007	TMS CU1-LU com.fault(Car No.4)	2	DT-CU1	Status data offline	Initialize 10s	hostier station off in unit
TMS-008	TMS CU1-LU com.fault(Car No.5)	2	DT-CU1	Status data offline	Initialize 10s	hostier station off in unit
TMS-009	TMS CU1-LU com.fault(Car No.6)	2	DT-CU1	Status data offline	Initialize 10s	hostier station off in unit
TMS-010	TMS CU1-LU com.fault(Car No.7)	2	DT-CU1	Status data offline	Initialize 10s	hostier station off in unit
TMS-011	TMS CU1-LU com.fault(Car No.8)	2	DT-CU1	Status data offline	Initialize 10s	hostier station off in unit

- You can choose to use different popup views based on your preferences (list, tree, page)

b. Fault Definitions and Help

SP1900 TMS Fault Diagnostic Dashboard

Search...

TMS CAB VOBC BRAKE CI1 CI2 SIV1 SIV2 DCU U DCU D A/C1 A/C2 COM MC

DPID DCCTV

Fault No.	Fault Name	Level	Car Type	D1	D2	D3	
TMS-001	TMS CU1-CU1 com.fault	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	
TMS-002	TMS CU1-CU2(DT1) com.fault	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-003	TMS CU1-CU2(DT2) com.fault	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-005	TMS CU1-LU com.fault(Car No.2)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-006	TMS CU1-LU com.fault(Car No.3)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-007	TMS CU1-LU com.fault(Car No.4)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-008	TMS CU1-LU com.fault(Car No.5)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-009	TMS CU1-LU com.fault(Car No.6)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-010	TMS CU1-LU com.fault(Car No.7)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-011	TMS CU1-LU com.fault(Car No.8)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s

10 rows 1 2 3 4 5 ... 115 > >>

Fault Definitions and Help

Get a better understanding of the fault definitions. You can also restart the tour here.

Use the arrow keys or click next to proceed.

Back 3/9 Next

SP1900 TMS Fault Diagnostic Dashboard

Search...

All TMS CAB VOBC BRAKE CI1 CI2 SIV1 SIV2 DCU U DCU D A/C1 A/C2 COM MC

DPID DCCTV

Fault No.	Fault Name	Level	Car Type	D1	D2	D3	
TMS-001	TMS CU1-CU1 com.fault	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	
TMS-002	TMS CU1-CU2(DT1) com.fault	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-003	TMS CU1-CU2(DT2) com.fault	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-005	TMS CU1-LU com.fault(Car No.2)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-006	TMS CU1-LU com.fault(Car No.3)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-007	TMS CU1-LU com.fault(Car No.4)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-008	TMS CU1-LU com.fault(Car No.5)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-009	TMS CU1-LU com.fault(Car No.6)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-010	TMS CU1-LU com.fault(Car No.7)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s
TMS-011	TMS CU1-LU com.fault(Car No.8)	2	DT-CU1	Status data offline	Initialize 10s	hostler station off in unit	5s

10 rows 1 2 3 4 5 ... 115 > >>

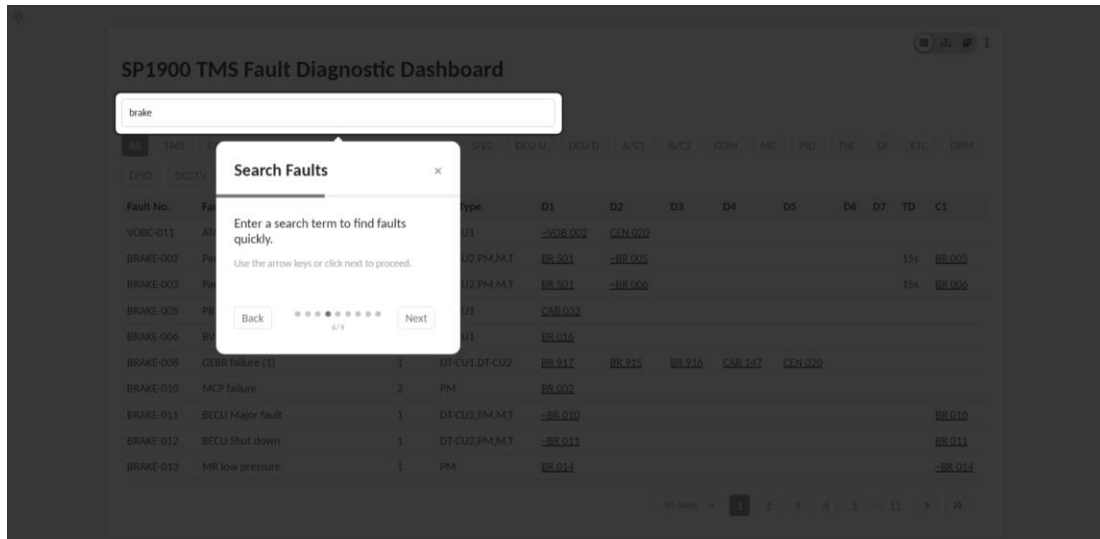
U: OR
~: Negation
^: Exclusive OR
&: AND
<, >, ==, >=, <=, !=: Comparison
#: Direct value

Logical Operators Detect and Clear Car Types

Fault Codes Start Tour

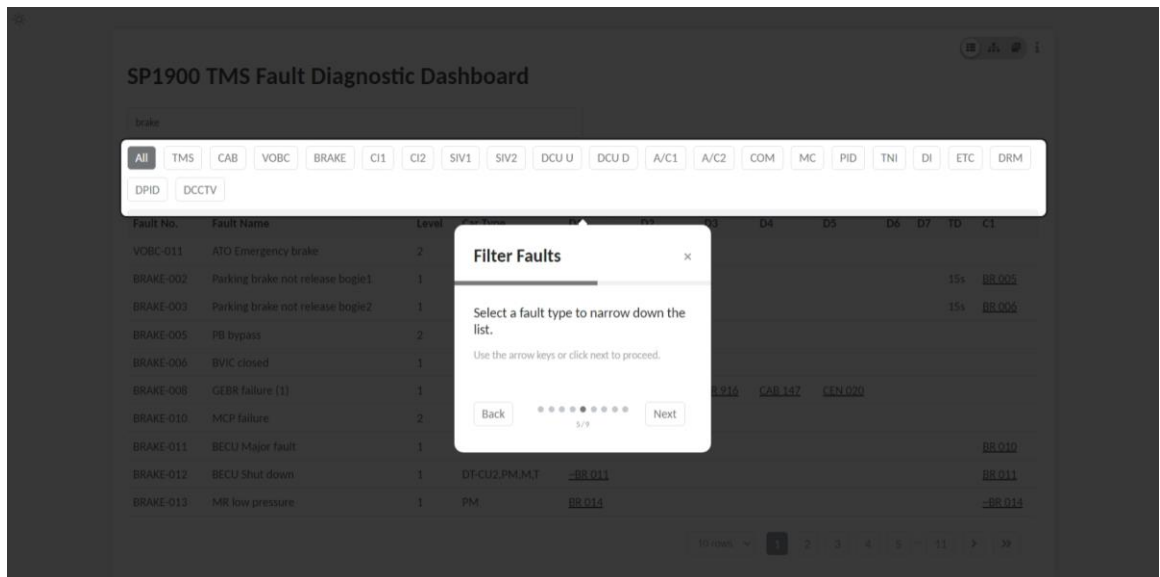
- You can see the definitions of the logical operators, detect and clear, car types, fault codes, and start a tour of the dashboard again.

c. Search Faults



- Can use the search bar to search the fault code, fault terms, and fault information

d. Filter Faults



- Use the filter bar to sort by categories

e. See Fault Details

SP1900 TMS Fault Diagnostic Dashboard

Brake

TMS CAB VDBC BRAKE C1 C2 SV1 SV2 DCU1 DCU2 A/E1 A/E2 COM MC PID TNI DI ETC DRM

DVID DCCTV

Fault No.	Fault Name	Level	Car Type	D1	D2	D3	D4	D5	D6	D7	TD	C1
VDBC-001	ATO Emergency brake	2	DT-C11	-VBC-002	CEN-020							
BRAKE-002	Parking brake not release bogie1	1	DT-CU2,PM,M,T	BR-501	-BR-005						15s	BR-005
BRAKE-004	Parking brake not release bogie2	1	DT-CU2,PM,M,T	BR-502	-BR-006						15s	BR-006
BRAKE-005	PB bypass	2										
BRAKE-006	BVIC closed	1										
BRAKE-008	GEDR failure (1)	1										
BRAKE-010	MCP failure	2										
BRAKE-011	BECLJ Major fault	1										BR-010
BRAKE-012	BECLJ Shut down	1										BR-011
BRAKE-013	MR low pressure	1										-BR-014

Fault Details

View the fault number, name, criticality level, detection logic and more.

Use the arrow keys or click next to proceed.

Back 6/9 Next

- Each row shows the fault details (Fault No, Fault Name, Criticality Level, Car Type, Detect Conditions, Time Delay, Clear Condition)

SP1900 TMS Fault Diagnostic Dashboard

brake

TH1 CAB VOBC BRAKE C1 C2 SIV1 SIV2 DCU D A/C1 A/C2 COM MC PID TNI DI ETC DRM

DRD DCTV

Fault No. Fault Name

VOBC-011 ATO Emergency t

BRAKE-002 Parking brake not

BRAKE-003 Parking brake not

BRAKE-005 PB bypass

BRAKE-006 BVIC closed

BRAKE-008 GEBR failure (1)

BRAKE-010 MCP failure

BRAKE-011 BECU Major fault

BRAKE-012 BECU Shut down

BRAKE-013 MR low pressure

Level

1

2

1

1

1

2

1

1

1

Car Type

DT-CU1,DT-CU2

PM

DT-CU1,DT-CU2

DT-CU2,PM,M,T

DT-CU2,PM,M,T

PM

D1

D2

D3

D4

D5

D6

D7

TD

C1

-VOBC-002 CEN-020

BR-005

BR-006

CAB-032

BR-016

BR-917 BR-915 BR-916 CAB-147 CEN-020

BR-002

-BR-010

-BR-011

BR-014

15s

15s

-BR-014

BR-501

Click to read the fault logic and details.

Use the arrow keys or click next to proceed.

Back ***** Next

779

10 rows

1

2

3

4

5

11

39

Circuit Diagrams

No BR 501

Monitoring PB release status(MR/BP Over 4bar)

I/F Type Internal Software Data

Detect 1:PB release
0:PB not working

Diagnostic Dashboard

C1 C2 SIV1 SIV2 DCU U DCU D A/C1 A/C2 COM MC PID TNI DI ETC DRM

Fault No. Fault Name Level Car Type D1 D2 D3 D4 D5 D6 D7 TD C1

BRAKE-002 Parking brake not release bogie1 1 DT-CU1 PB release status(MR/BP Over 4bar) 15s BR-005

BRAKE-003 Parking brake not release bogie2 1 DT-CU2,PM,M,T BR-501 -BR-006 15s BR-006

BRAKE-005 PB bypass 2 DT-CU1 CAB-032

BRAKE-006 BVIC closed 1 DT-CU1 BR-016

BRAKE-008 GEBR failure (1) 1 DT-CU1,DT-CU2 BR-917 BR-915 BR-916 CAB-147 CEN-020

BRAKE-010 MCP failure 2 PM BR-002

BRAKE-011 BECU Major fault 1 DT-CU2,PM,M,T -BR-010 BR-010

BRAKE-012 BECU Shut down 1 DT-CU2,PM,M,T -BR-011 BR-011

BRAKE-013 MR low pressure 1 PM BR-014 -BR-014

BRAKE-014 Friction brake not released bogie1 1 DT-CU2,PM,M,T BR-008 -BR-909 -BR-906 -CAB-909 -BR-099 5s

10 rows

1

2

3

4

5

10

39

Circuit Diagrams

No BR 501

Monitoring PB release status(MR/BP Over 4bar)

I/F Type Internal Software Data

Detect 1:PB release
0:PB not working

Circuit Diagrams

No -BR 006

Monitoring -PB released(bogie 2)

I/F Type Digital Input M6152

Detect 0:PB Not released
1:PB released

Diagnostic Dashboard

A/C2 COM MC PID TNI DI ETC DRM

Fault No. Fault Name Level Car Type D1 D2 D3 D4 D5 D6 D7 TD C1

BRAKE-002 Parking brake not release bogie1 1 DT-CU2,PM,M,T BR-501 -PB released(bogie 2) 15s BR-005

BRAKE-003 Parking brake not release bogie2 1 DT-CU2,PM,M,T BR-501 -BR-006 15s BR-006

BRAKE-005 PB bypass 2 DT-CU1 CAB-032

BRAKE-006 BVIC closed 1 DT-CU1 BR-016

BRAKE-008 GEBR failure (1) 1 DT-CU1,DT-CU2 BR-917 BR-915 BR-916 CAB-147 CEN-020

BRAKE-010 MCP failure 2 PM BR-002

BRAKE-011 BECU Major fault 1 DT-CU2,PM,M,T -BR-010 BR-010

BRAKE-012 BECU Shut down 1 DT-CU2,PM,M,T -BR-011 BR-011

BRAKE-013 MR low pressure 1 PM BR-014 -BR-014

BRAKE-014 Friction brake not released bogie1 1 DT-CU2,PM,M,T BR-008 -BR-909 -BR-906 -CAB-909 -BR-099 5s

10 rows

1

2

3

4

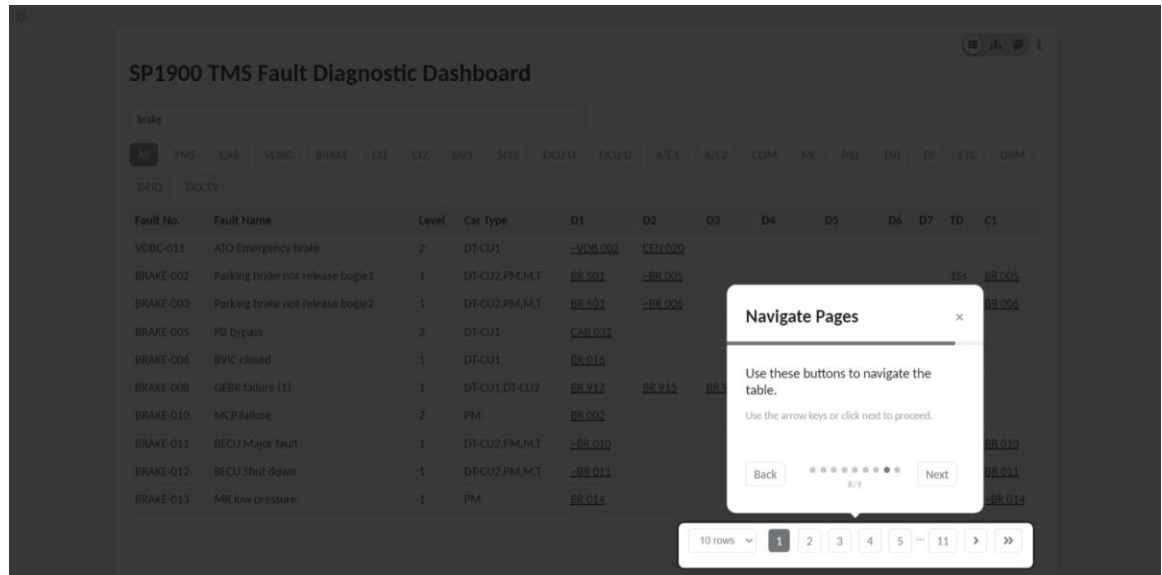
5

10

39

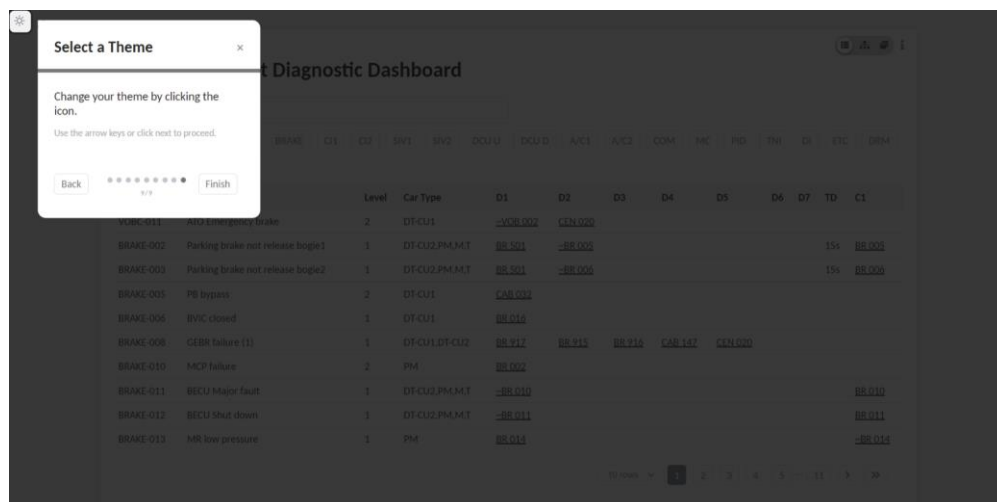
- Clicking on the detection fault codes will show the detection logic and i/f type (digital/physical data)

f. Navigate Pages



- Use the navigation buttons to move to different pages, can also change the dropdown to show more than 10 faults in a page (10,25,50,All).

g. Select a Theme



- Click the button to switch themes (light/dark)

3. Maintenance Guidelines (using GitHub repository)

a. Access the GitHub Repository

- URL: <https://github.com/tmsfault/SP1900-TMS-Fault-Diagnostic-Dashboard>
- Login credentials:
 - GitHub: tmsfault@gmail.com (Password: sp1900tmsfault)
 - Gmail: tmsfault@gmail.com (Password: sp1900tmsfault)

b. Repository Structure Overview

- **index.html**: code that formats the main page
- **scripts.js**: code that has all the functionality of the dashboard
- **styles.css**: code that stylizes the dashboard
- **fault_data.csv**: contains all the fault data of the sp1900 TMS
- **circuits/**: (Folder containing all the circuit diagrams for each filter categories)

c. Adding or Modifying Fault Data

- Open this link '[sample_data.csv](#)' to help understand how to input data as an example
- Open '**fault_data.csv**', find this **line** (it only contains a '-' in the 1st column):

1145	DCCTV-02	Digital CCT	3	DT-CU2,PM	DCT 125			
1146	DCCTV-02	Digital CCT	3	DT-CU2,PM	DCT 126			
1147	DCCTV-02	Digital CCT	3	DT-CU2,PM	DCT 127			
1148	-							
1149	CAB 900	transmission		CAB 100 & ~CAB 101				
1150	CAB 901	V02 is ON	(DT1 CU1)	CAB 005 U	(DT2 CU1)	CAB 005		
1151	CAB 902	Speed dete	CEN 033 >= #5					

- Add/Modify fault data **above** the line (for **main fault code**)
 - 1st column: Fault Code
 - 2nd column: Fault Name
 - 3rd column: Criticality Level (1,2,3)
 - 4th column: Car Type (DT-CU1,DT-CU2,PM,M,T)
 - 5th column: Detected Condition 1
 - ...11th column: Detected Condition 7
 - 12th column: Time Delay
 - 13th column: Clear Condition
- Add/Modify fault data **below** the line (for **detected fault logic**)
 - 1st column: Fault Code
 - 2nd column: Fault Name
 - If 4th column is empty
 - 3rd column: Fault Condition

→ Else

- 3rd column: Fault Logic (Negative Condition (~) (1:xxx))
- 4th column: Fault Logic (Positive Condition (0:xxx))
- 5th column: I/F Type

d. Changing/Updating Circuit Diagrams

- Upload/Replace the new circuit diagram to GitHub and put it inside the **‘circuits/’** folder and name it respectively to its filter category. (i.e. CAB, TMS, BRAKE...)
 - Check **‘scripts.js’**, if the filter category doesn’t already exist and has a link to a circuit diagram, you can add a new line with that category and add the link to the circuit as well. (ex. ‘XXX’:
‘https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/XXX.pdf’,)

```
24 let circuitDiagrams = {
25   'TMS': 'https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/TMS.pdf',
26   'CAB': 'https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/CAB.pdf',
27   'VOBC': 'https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/VOBC.pdf',
28   'BRAKE': 'https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/BRAKE.pdf',
29   'CI1': 'https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/CI.pdf',
30   'CI2': 'https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/CI.pdf',
31   'SIV1': 'https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/SIV.pdf',
32   'SIV2': 'https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/SIV.pdf',
33   'DCU U': 'https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/DCU.pdf',
34   'DCU D': 'https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/DCU.pdf',
35   'A/C1': 'https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/AC.pdf',
36   'A/C2': 'https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/AC.pdf',
37   'ETC': 'https://tmsfault.github.io/SP1900-TMS-Fault-Diagnostic-Dashboard/circuits/ETC.pdf',
38 };
```

e. Changing/Updating Main Page

- Edit **‘index.html’** to change the main page.

f. Changing/Updating Functions

- Edit **‘scripts.js’** to add/edit/remove the functionality of the dashboard

g. Changing/Updating Styling

- Edit **‘styles.css’** to add/edit/remove the styling of the dashboard

h. Commit changes on GitHub

- To apply these changes, press **Commit** to update the dashboard to implement the new changes on the dashboard