## A: OPERATION

For details of basic operations, refer to "PC application help for Subaru Select Monitor".

### **B: COMMUNICATION FOR INITIALIZING IMPOSSIBLE**

#### **DIAGNOSIS:**

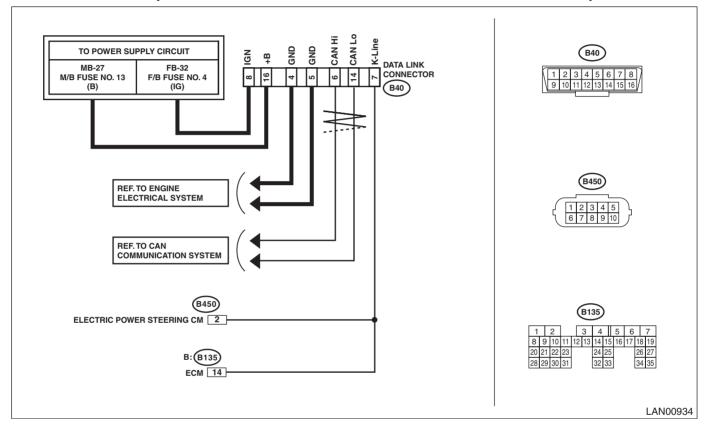
Subaru Select Monitor communication line is open or shorted.

#### TROUBLE SYMPTOM:

Not communicable with Subaru Select Monitor.

#### **WIRING DIAGRAM:**

CAN communication system <Ref. to WI-46, WIRING DIAGRAM, CAN Communication System.>

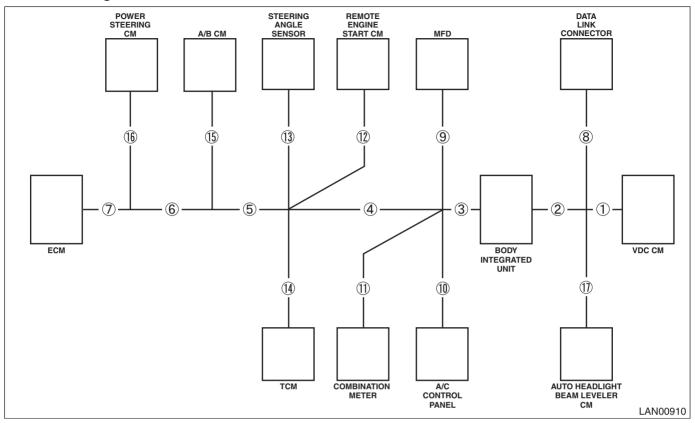


	Step	Check	Yes	No
1		Is communication performed normally?		Subaru Select Monitor unit or diagnosis cable is faulty. Or check the fuse on the vehicle side.

	Step	Check	Yes	No
2	CHECK COMMUNICATION FOR INITIALIZ-ING ERROR.  Perform the communication for initializing with the following modules by connecting the Subaru Select Monitor. (only for installed modules)  • VDC  • Body integrated unit  • Meter  • High grade MFD (C0 model only)  • A/C  • A/B  • Auto headlight beam leveler  • TCM	Is the communication possible with all modules?	Go to step 3.	Perform the inspection using the check sheet of communication for initializing. <ref. check="" communication="" for="" impossible,="" initializing="" initializing,="" lan(diag)-11,="" monitor.="" of="" select="" sheet="" subaru="" the="" to="" using=""></ref.>
3	CHECK K-LINE.  1) Establish the communication between Select Monitor and K-Line communication module.  2) Using a tester, check continuity between the modules that did not communicate with Select Monitor.  Connector & terminal (B40) No. 7 — (B135) No. 14 (ECM): (B40) No. 7 — (B450) No. 2 (electric power steering):	Is there continuity?	Go to step 4.	Repair or replace the open circuit.
4	CHECK K-LINE. Using a tester, check continuity between K-line and chassis ground.  Connector & terminal  (B40) No. 7 — Chassis ground:	Is there continuity?	Repair or replace the short circuit portion.	Go to step 5.
5	CHECK K-LINE. Using a tester, check voltage between K-line and chassis ground.  Connector & terminal  (B40) No. 7 (+) — Chassis ground (-):	Is the voltage 5 V or more with IG ON?	Repair or replace the short circuit portion.	Go to step 6.
6	CHECK K-LINE.  Use a tester to check for continuity in the ground circuit.  Connector & terminal  (B40) No. 4 — Chassis ground:  (B40) No. 5 — Chassis ground:	Is there continuity?	Go to step 8.	Go to step 7.
7	CHECK K-LINE.  1) Disconnect the ECM connector.  2) Use a tester to check for continuity in the ground circuit.  Connector & terminal  (B40) No. 4 — (B137) No. 3:  (B40) No. 5 — (B136) No. 4:	Is there continuity?	Check ECM ground.	Repair or replace the open circuit.
8	CHECK K-LINE.  1) Turn the ignition switch to ON.  2) Using a tester, check the power supply of data link connector.  Connector & terminal  (B40) No. 8 (+) — Chassis ground (-):  (B40) No. 16 (+) — Chassis ground (-):	Is the voltage 10 V or more?	K-Line is normal. Check the power supply circuit of each module.	Check the power supply circuits to the data link connector.

## 1. CHECK USING THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING

## Network diagram



#### LAN SYSTEM (DIAGNOSTICS)

## • Check sheet of communication for initializing

						_	_	_		_	(	E)	_							
	(A)	(	В)	1	2	3	4	<b>⑤</b>	6	7	8	9	10	11)	12	13	14)	15)	16	17
	(A)	(C)	(D)						_	ı					_	ı			_	
VDC		_			_	_	_	_	_	_		_	_	_	_	_	_	_	_	_
BIU		_		_		_	_	_	_	_		_	_	_	_	_	_	_	_	_
MFD		_		_			_	_	_	_			_	_	_	_	_	_	_	-
A/C		_		_			_	_	_	_		_		_	_	_		_	_	_
MET		_		_			_	_	_	_		_	_		_	_	_	_	_	_
RST		_		_	_	_	_	_	_			_	_	_	_	_		_	_	_
STR		_		_		_	_	_	_		_	_	_	_	_	_		_	_	_
TCM		_		_				_	_	_		_	_	_	_	_		_	_	-
A/B		_		_					_					_	_				_	_
EPS			_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	-
EGI			_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_
HL		_		_		_				_		_	_			_				

(A) Installation check

(B) Communication initialization

(C) K-Line

(D) CAN

(E) Wiring location

VDC: VDC CM

BIU: Body integrated unit

MFD: High grade MFD

A/C: A/C control panel MET: Combination meter

\_ - - -

RST: Remote engine starter CM

STR: Steering angle sensor

TCM: TCM A/B: AB CM

EPS: Power steering CM

EGI: ECM

HL: Auto headlight beam leveler CM

- 1) Module installation check
  - (1) Write "-" marks in the field for installation check if the vehicle to be inspected does not have relevant module.
  - (2) Write "-" marks in all blank fields on the same row that the "-" mark has filled in.

#### NOTE:

Example of writing <Ref. to LAN(diag)-14, EXAMPLE OF WRITING FOR THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>

- 2) SSM communication initialization check
  - (1) Write "O" marks in the field for communication initialization if the module succeeded in the communication for initializing with Select Monitor.
  - If the communication with all modules is not possible, go to 3).
  - (2) Write "O" marks in all blank fields on the same row that the "O" mark has filled in.
  - (3) When at least one field in a column of wiring location is filled with the " $\bigcirc$ " mark, then the wiring for that location is normal, Write " $\bigcirc$ " marks in all blank fields on the same column that the " $\bigcirc$ " mark has filled in under the circled number.
  - (4) Check the open circuit of the modules which have no "\cap" mark in their columns of the wiring location in ascending order. (only for installed modules)
  - (5) If the communication is not possible after checking all harnesses, check the module power supply line.
  - (6) Replace the module if the power supply line is normal.

#### NOTE:

- Example of writing <Ref. to LAN(diag)-14, EXAMPLE OF WRITING FOR THE CHECK SHEET OF COM-MUNICATION FOR INITIALIZING, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>
- Inspection using the communication for initializing of Subaru Select Monitor cannot be used to diagnose the wiring location marked with "-". Example of DTC data not received <Ref. to LAN(diag)-54, EXAMPLE OF DTC DATA NOT RECEIVED, LIST, List of Diagnostic Trouble Code (DTC).> and DTC matrix <Ref. to LAN(diag)-60, DTC MATRIX, LIST, List of Diagnostic Trouble Code (DTC).> should be used to identify the faulty portion.
- 3) SSM communication initialization check (impossible to communicate with all modules)

#### NOTE:

If at least one module becomes possible to communicate, return to 2).

- (1) Check for the short circuit to ground. <Ref. to LAN(diag)-27, GROUND SHORT INSPECTION, INSPECTION, CAN Communication Circuit Check.> If it is normal, go to the next.
- (2) Check for the short circuit to battery. <Ref. to LAN(diag)-29, BATTERY SHORT INSPECTION, INSPECTION, CAN Communication Circuit Check.> If it is normal, go to the next.
- (3) Perform the inspection for the resistance of 52  $\Omega$  or less (short between wires). <Ref. to LAN(diag)-
- 33, 52  $\Omega$  OR LESS, INSPECTION, CAN Communication Circuit Check.> If it is normal, go to the next.
- (4) Check for the open circuit of network diagram No. 8 (data link connector).

# 2. EXAMPLE OF WRITING FOR THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING When $\ensuremath{\uppha}$ is open

											(	E)								
	(A)	(	В)	1	2	3	4	<b>⑤</b>	6	7	8	9	10	11)	12	13	14	15	16)	1
	(A)	(C)	(D)		0	0	0	0	_	_	0	0	0	0			0	0	_	0
VDC	0	_	×		_	_	_	_	_		0	_	_	_			_	_	_	_
BIU	0	_	0	_	0	_	_	_	_	_	0	_	_	_	_	_	_	_	_	_
MFD	0	_	0	_	0	0	_	_	_	_	0	0	_	_	_	_	_	_	_	_
A/C	0	_	0	_	0	0	_	_	_		0	_	0	_	_	_	_	_	_	_
MET	0	_	0	_	0	0	_	_	_	_	0	_	_	0			_	_	_	_
RST	0			_	_	_	_	_	_		_	_	_	_			_	_	_	_
STR	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ТСМ	0	_	0	_	0	0	0	_	_	_	0	_	_	_	_	_	0	_	_	_
A/B	0	_	0	_	0	0	0	0	_	_	0	_	_	_	_	_	_	0	_	_
EPS	0	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
EGI	0	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
HL	0	_	0	_	_	_	_	_	_	_	0	_	_	_	_		_	_	_	0

When ② is open

											(	E)								
	(A)	(	В)	1	2	3	4	<b>⑤</b>	6	7	8	9	10	11)	12	13	14)	15)	16)	17)
	(A)	(C)	(D)	0					_		0				_				_	0
VDC	0	_	0	0	_	_	_	_	_	_	0	_	_	_	_	_	_	_	_	_
BIU	0		×	_		_	_	_	_	_	0		_	_	_	_	_	_	_	_
MFD	0		X				_	_	_	_	0		_	_	_	_	_	_	_	_
A/C	0		X	_			_	_	_	_	0	_		_	_	_	_	_	_	_
MET	0		X	_			_	_	_	_	0	_	_		_	_	_		_	
RST	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
STR	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
TCM	0	_	×	_				_	_	_	0	_	_	_	_	_		_	_	_
A/B	0	_	X	_					_	_	0	_	_	_	_	_	_		_	_
EPS	0	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
EGI	0	0	_	_	-	_	_	_	_	_		_	_	_	_	_	_	_	_	_
HL	0	_	0	_	_		_	_	_		0			_	_	_	_	_	_	О

# When ③ is open

					_						(	E)						_	_	
	(A)	(	В)	1	2	3	4	<b>⑤</b>	6	7	8	9	10	11)	12	13	14)	15	16	17)
		(C)	(D)	0	0				_	_	0				_	_			_	0
VDC	0	_	0	0	_	_	_	_	_	_	0	_		_	_	_	_	_	_	_
BIU	0	_	0	_	0	_	_	_	_		0			_	_	_	_	_	_	_
MFD	0		X	_	0		_	_	_		0				_	_	_	_	_	_
A/C	0		X	_	0		_	_	_		0				_	_	_	_	_	_
MET	0		X	_	0		_	_	_	_	0		_		_	_	_	_	_	_
RST	0	_	_	_	_	_	_	_	_	_	_		_	_	_		_	_	_	_
STR	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
TCM	0	_	×	_	0			_	_	_	0	_	_	_	_	_		_	_	_
A/B	0	_	X	_	0				_	_	0	_	_	_	_	_	_		_	_
EPS	0	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
EGI	0	0	_	_	_	_	_	_	_			_	_	_	_	_	_	_	_	_
HL	0	_	0	_	_	_	_	_	_		0	_	_	_	_	_	_	_	_	0

#### LAN SYSTEM (DIAGNOSTICS)

When either one of 4, 5 or 5 is open

NOTE:

Each module can be distinguished from the others depending on the difference of no-receive conditions between modules. <Ref. to LAN(diag)-60, DTC MATRIX, LIST, List of Diagnostic Trouble Code (DTC).>

					_	_			_		(	E)				_		_	_	
	(A)	(	В)	1	2	3	4	5	6	7	8	9	10	11)	12	13	14)	15	16	17)
	(A)	(C)	(D)	0	0	0			_	_	0	0	0	0	_	_			_	0
VDC	0	_	0	0	_	_		_	_	_	0	_		_	_	_	_	_	_	_
BIU	0		0	_	0	_	_	_	_	_	0	_	_	_	_	_	_	_	_	_
MFD	0	_	0	_	0	0		_	_	_	0	0	_	_	_	_	_	_	_	_
A/C	0	_	0	_	0	0		_	_	_	0	_	0	_	_	_	_	_	_	_
MET	0		0	_	0	0	_	_	_	_	0	_	_	0	_	_	_	_	_	_
RST	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
STR	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ТСМ	0	_	X	_	0	0		_	_	_	0	_	_	_	_	_		_	_	_
A/B	0		X	_	0	0			_	_	0	_	_	_	_	_	_		_	_
EPS	0	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
EGI	0	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
HL	0	_	0		_	_		_	_	_	0	_		_	_	_	_			0

When either one of 6, 7, 12, 13 or 16 is open

#### NOTE:

Each module can be distinguished from the others depending on the difference of no-receive conditions between modules. <Ref. to LAN(diag)-54, EXAMPLE OF DTC DATA NOT RECEIVED, LIST, List of Diagnostic Trouble Code (DTC).> <Ref. to LAN(diag)-60, DTC MATRIX, LIST, List of Diagnostic Trouble Code (DTC).>

											,	<b>-</b> \								
		(	В)		1	ı —		1			(	E)	ı —				·	·	·	
	(A)			1	2	3	4	5	6	7	8	9	10	11)	12	13	14)	15	16	17
	(A)	(C)	(D)	0	0	0	0	0	_	_	0	0	0	0	1	_	0	0	_	0
VDC	0	_	0	0	_	_	_	_	_	_	0	_	_		_	_	_	_	_	_
BIU	0	_	0	_	0	_	_	_	_	_	0	_	_	_	_	_	_	_	_	_
MFD	0	_	0	_	0	0	_	_	_	_	0	0	_	_	_	_	_	_	_	_
A/C	0	_	0	_	0	0	_	_	_	_	0	_	0	_	_	_	_	_	_	_
MET	0	_	0	_	0	0	_		_	_	0	_	_	0	_	_	_	_	_	
RST	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
STR	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
ТСМ	0	_	0	_	0	0	0	_	_	_	0	_	_	_	_	_	0	_	_	_
A/B	0	_	0	_	0	0	0	0	_	_	0	_	_	_	_	_	_	0	_	_
EPS	0	0	_		_	_	_						_				_	_	_	
EGI	0	0	_	_	_	_	_			_			_		_	_	_	_	_	
HL	0		0	_	_	_	_	_	_	_	0	_	_	_	_	_	_	_	_	0

LAN00916

## LAN SYSTEM (DIAGNOSTICS)

When (8) is open

NOTE:

3) Perform inspection by referring to the communication initialization check (impossible to communicate with all modules). (® There may be a malfunction other than open circuit)

											(	E)								
	(4)	(	B)	1	2	3	4	5	6	7	8	9	10	11)	12	13	14	15	16	17)
	(A)	(C)	(D)						_	_					_	_			_	
VDC	0	_	×		_	_	_	_	_	_		_	_	_	_	_	_	_	_	_
BIU	0	_	X	_		_	_	_	_	_		_	_	_	_	_	_	_	_	_
MFD	0		X	_			_	_	_	_			_	_	_	_	_	_	_	_
A/C	0		X	_			_	_	_	_		_		_	_	_	_	_	_	_
MET	0		X	_			_		_	_		_	_		_	_		_		_
RST	0		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
STR	0		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ТСМ	0	_	X	_				_	_	_		_	_	_	_	_		_	_	_
A/B	0	_	X	_					_	_		_	_	_	_	_	_		_	_
EPS	0	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
EGI	0	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
HL	0		X	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	

# When (9) is open

											(	E)								
	(A)	(	В)	1	2	3	4	5	6	7	8	9	10	11)	12	13	14)	15	16	17)
	(A)	(C)	(D)	0	0	0	0	0			0		0	0	_	1	0	0	_	0
VDC	0	_	0	0	_	_	_	_	_	_	0	_	_	_	_	_	_	_	_	_
BIU	0	_	0	_	0	_	_	_	_	_	0		_	_	_	_	_	_	_	_
MFD	0	_	X	_	0	0	_	_	_		0		_	_	_	_	_	_	_	_
A/C	0	_	0	_	0	0	_	_	_	_	0		0	_	_	_	_	_	_	_
MET	0	_	0		0	0	_	_	_		0		_	0	_		_	_	_	_
RST	0				_	_	_	_	_		_			_	_		_	_	_	_
STR	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
ТСМ	0	_	0	_	0	0	0	_	_	_	0	_	_	_	_	_	0	_	_	_
A/B	0	_	0	_	0	0	0	0	_	_	0	_	_	_	_	_	_	0	_	_
EPS	0	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
EGI	0	0	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_
HL	0	_	0		_	_	_	_	_		0			_	-			_	_	0

## When 10 is open

											(	E)								
	(A)	(	В)	1	2	3	4	5	6	7	8	9	10	11)	12	13	14)	15	16	17)
	(A)	(C)	(D)	0	0	0	0	0	_	1	0	0		0	1	1	0	0	_	0
VDC	0	_	0	0	_	_	_	_	_		0	_	_	_			_	_	_	_
BIU	0		0	_	0	_	_	_	_	_	0	_	_	_	_	_	_	_		_
MFD	0		0	_	0	0	_	_	_		0	0	_	_		_		_	_	_
A/C	0		X	_	0	0	_	_	_	_	0	_		_		_			_	_
MET	0		0	_	0	0	_	_	_	_	0		_	0	_	_	_	_	_	_
RST	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
STR	0	_		_	_	_	_	_	_		_		_	_		_	_	_	_	
TCM	0	_	0	_	0	0	0	_	_		0	_	_	_		_	0		_	_
A/B	0	_	0	_	0	0	0	0	_	_	0	_	_	_		_	_	0	_	_
EPS	0	0	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_
EGI	0	0	_	_	_	_	_	_	_				_	_		_	_	_	_	_
HL	0	_	0	_	_	_	_	_			0	_		_				_	_	О

## LAN SYSTEM (DIAGNOSTICS)

# When ① is open

											(	E)								
	(A)	(	В)	1	2	3	4	5	6	7	8	9	10	11)	12	13	14)	15	16	17)
	(A)	(C)	(D)	0	0	0	0	0	_	1	0	0	0		1	ı	0	0	_	0
VDC	0	_	0	0	_	_	_	_	_	_	0	_		_		_	_	_	_	_
BIU	0	_	0	_	0	_	_	_	_	_	0	_		_	_	_	_	_	_	_
MFD	0	_	0	_	0	0	_	_	_		0	0	_	_	_	_	_	_	_	_
A/C	0	_	0	_	0	0	_	_	_		0	_	0	_		_		_	_	_
MET	0		X	_	0	0	_	_	_		0	_	_					_	_	_
RST	0		_	_	_	_	_	_	_		_			_				_	_	_
STR	0			_	_	_	_	_	_	_		_		_		_		_	_	_
ТСМ	0	_	0	_	0	0	0	_	_	_	0	_	_	_			0	_	_	_
A/B	0	_	0	_	0	0	0	0	_	_	0	_	_	_	_	_	_	0	_	_
EPS	0	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
EGI	0	0		_	_	_	_	_	_			_	_	_				_	_	_
HL	0		0	_	_	_	_		_		0	_	_	_	_	_	_	_	_	0

# When (4) is open

		(B)			(E)															
	(A)			1	2	3	4	<b>⑤</b>	6	7	8	9	10	11)	12	13	14)	15)	16	17)
		(C)	(D)	0	0	0	0	0	_		0	0	0	0	1	I		0		0
VDC	0	_	0	0	_	_	_	_	_	_	0	_	_	_	_	_	_	_	_	_
BIU	0	_	0	_	0	_	_	_	_	_	0	_	_	_	_	_	_	_		_
MFD	0		0	_	0	0	_	_	_	_	0	0	_	_				_	_	_
A/C	0	_	0	_	0	0	_	_	_	_	0		0	_				-	_	_
MET	0	_	0	_	0	0	_	_	_	_	0		_	0					_	
RST	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
STR	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
TCM	0	_	X	_	0	0	0	_	_	_	0	_	_	_	_	_		_	_	_
A/B	0	_	0	_	0	0	0	0	_	_	0	_	_	_	_	_	_	0	_	_
EPS	0	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
EGI	0	0			_	_		_	_				_	_					_	_
HL	0		0	_	_	_		_	_	_	0	_		_				_		О

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# When n is open

		(B)			(E)															
	(A)			1	2	3	4	5	6	7	8	9	10	11)	12	13	14)	15)	16	17)
		(C) (D)	0	0	0	0	0	_	_	0	0	0	0	-	_	0	0	_		
VDC	0	_	0	0	_	_	_	_	_	_	0	_	_	_	_	_	_	_	_	_
BIU	0	_	0	_	0	_	_	_	_	_	0	_	_	_	_	_	_		_	_
MFD	0	_	0	_	0	0	_		_	_	0	0	_	_	_	_			_	_
A/C	0	_	0	_	0	0	_	_	_	_	0	_	0	_	_	_			_	_
MET	0	_	0	_	0	0	_	_	_	_	0	_	_	0	_	_			_	_
RST	0		_	_	_	_	_		_	_		_	_	_	_	_			_	_
STR	0	_	_	_	_	_	_		_	_		_	_	_	_	_			_	_
ТСМ	0	_	0	_	0	0	0	_	_	_	0	_	_	_	_	_	0		_	_
A/B	0	_	0	_	0	0	0	0	_	_	0	_	_	_	_	_	-	0	_	_
EPS	0	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
EGI	0	0	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_	
HL	0		X	_	_	_	_		_	_	0	_	_	_	_	_	_	_	_	