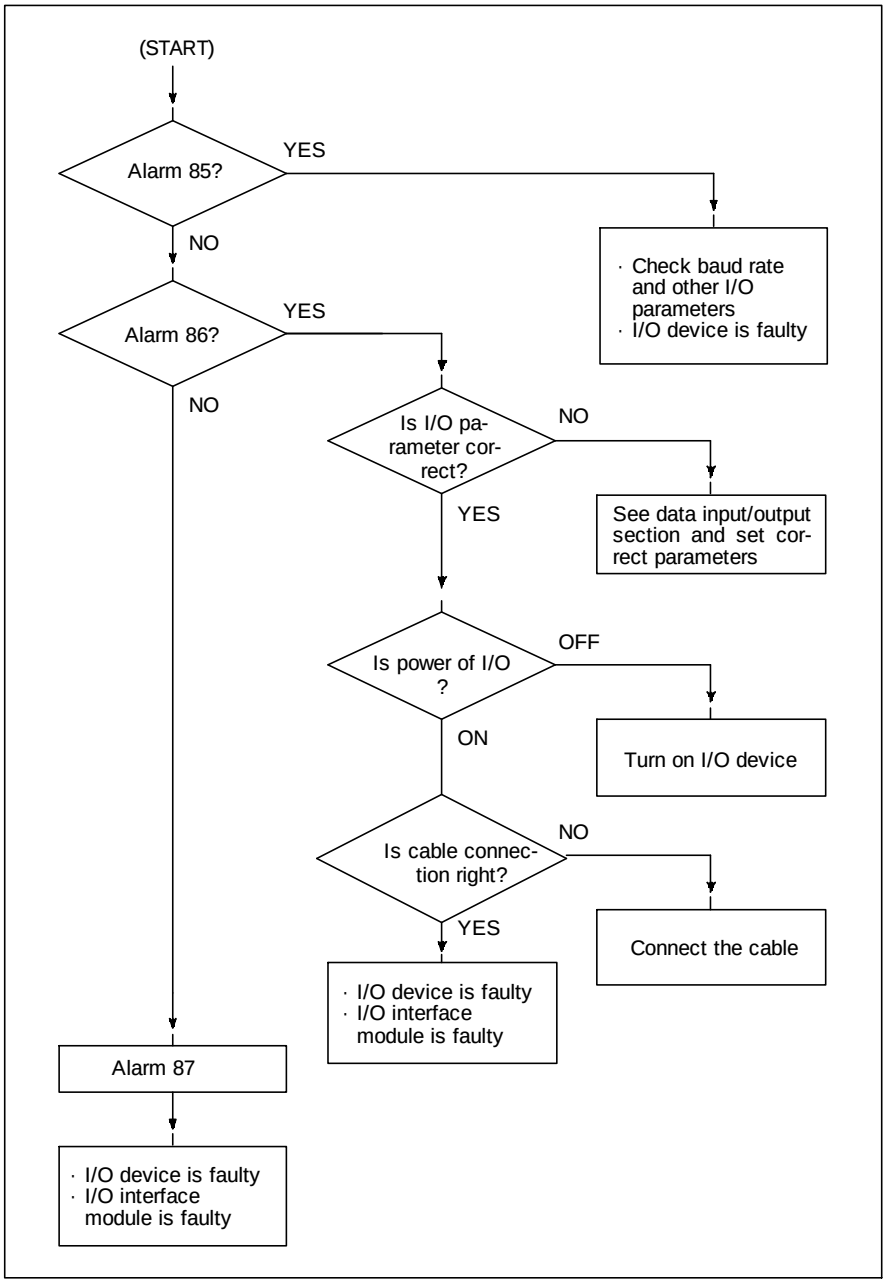
6.9 ALARM 85 TO 87 (READER/PUNCHER INTERFACE ALARM)



Causes

(a) Parameters on reader/puncher interface are not correct. Check the following setting data and parameters.

(b) External I/O device or host computer is faulty.

(c) I/O board is faulty.

(d) Cable between NC and I/O device is faulty.

Countermeasures

(a) Parameters on reader/puncher interface are not correct. Check the following setting data and parameters:

Parameters related to data input/output

To use the FANUC floppy cassette, set the parameters as shown below:
Setting: I/O = 0 (*1)
Parameter: ISO = 1

		#7	#6	#5	#4	#3	#2	#1	#0
PRM	0002	1	*	*	*	*	0	*	1
PRM	0552	10 (4800BPS)							
PRM	0010	*	*	*	*	PRG9	*	*	*

PRG9 1 : Protects program numbers 9000 to 9999.
0 : Allows program numbers 9000 to 9999 to be edited.

		#7	#6	#5	#4	#3	#2	#1	#0
PRM	0038	*	*	*	*	FLKY	*	*	*

FLKY 1 : Specifies the use of a full keyboard.
0 : Specifies the use of a standard keyboard.

***1** A data I/O unit is selected depending on whether I/O = reader/punch interface.

Function	Related parameter number			
	I/O=0	I/O=1	I/O=2	I/O=3
Feed NFED	2.7	12.7	50.7	51.7
20 mA current loop ASR33	2.2	12.2	Unusable	
Stop bit STP2	2.0	12.0	50.0	51.0
I/O unit type setting	38.7 38.6	38.7 38.6	38.5 38.4	38.2 38.1
Connector number	M5 channel 1	M5 channel 1	M74 channel 2	M77 channel 3

When M77 is used, the RS-232-C or RS-422 can be selected according to bit 3 of parameter No. 55.

I/O is 0

		#7	#6	#5	#4	#3	#2	#1	#0
PRM	0002	NFED				RSASCI	ASR33		STP2

I/O is 1

		#7	#6	#5	#4	#3	#2	#1	#0
PRM	0012	NFED				RSASCI	ASR33		STP2

I/O is 2

		#7	#6	#5	#4	#3	#2	#1	#0
PRM	0050	NFED				RSASCI	ASR33		STP2

I/O is 3

		#7	#6	#5	#4	#3	#2	#1	#0
PRM	0051	NFED				RSASCI	ASR33		STP2

NFED 0 : Feed is output before and after data in data output (FANUC PPR)
1 : Feed is not output (standard).

RSASCI 0 : Data input code is EIA or ISO (automatic recognition)
1 : Data input code is ASCII.

ASR33 1 : Specifies the use of a 20 mA current interface.

(When I/O is 0 or 1) 0 : specifies the use of the FANUC PPR, FANUC cassette, or portable tape reader.

STP2 0 : No. of stop bits is 1.
1 : No. of stop bits is 2.

		#7	#6	#5	#4	#3	#2	#1	#0
PRM	0038	RSCMD1	DEVFL1	RSCMD2	DEVFL2		RSCMD3	DEVFL3	

#1(DEVFL3) :
#2(RSCMD3) : Setting I/O device for remote buffer (I/O = 3)
#4(DEVFL2) :
#5(RSCMD2) : Setting I/O device for reader/punch interface (I/O = 2)
#6(DEVFL1) :
#7(RSCMD1) : Setting I/O device for reader/puncher interface (I/O=0, 1)

(I/O=3)

RSCMD3	DEVFL3	Used I/O device
0	0	Bubble cassette
0	1	Floppy cassette
1	0	Unit such as paper tape reader
1	1	Unit such as paper tape reader

(I/O=0, 1, 2)

RSCMD*	DEVFL*	Used I/O device
0	0	Bubble cassette
0	1	Floppy cassette
1	0	RS-232-C, PPR
1	1	New interface

I/O is 2

PRM	0250	Baud rate

I/O is 3

PRM	0251	Baud rate

I/O is 0

PRM	0552	Baud rate

I/O is 1

PRM	0553	Baud rate

Value	Baud rate
7	600
8	1200
9	2400
10	4800
11	9600
12	19200

The following settings are also valid if bit 3 of parameter No. 55 is 1 (RS-422 interface is used).

Value	Baud rate
13	38400
14	76800
15	86400
16	153600
17	307200
18	335100
19	368400
20	409600
21	460800
22	526600
23	614400
24	737300
25	921600

If the value is set to 15 (86400 bps) or greater, use an external clock.

If the I/O setting parameter = 3, check the following parameter too.

		#7	#6	#5	#4	#3	#2	#1	#0
PRM	0051			CLK	NCD		SYN	PRY	

CLK 0 : The internal clock is used for the RS-422 interface baud rate.
1 : An external clock is used for the RS-422 interface baud rate.

NCD 0 : The CD (signal quality detection) of the RS-232C interface is checked.
1 : The CD (signal quality detection) of the RS-232C interface is not checked.

SYN 0 : For protocol B, an NC reset/alarm is not reported to the host.
1 : For protocol B, an NC reset/alarm is reported to the host using the SYN and NAK code.

PRY 0 : A parity bit is not used.
1 : A parity bit is used.

		#7	#6	#5	#4	#3	#2	#1	#0
PRM	0055	RMS				R42	PRA	ETX	ASC

RMS specifies, for protocol A, how to handle the "remote/tape operation state" of the SAT command during transmission.
0 : Keeps the state always at 0.
1 : Returns information about the "remote/tape operation changeover request" of the SET command from the host.

R42 0 : The RS-232C interface is used.
1 : The RS-422 interface is used.

PRA 0 : Communication protocol A is used.
1 : Communication protocol B is used.

ETX 0 : The end code for protocol A or extended protocol A is a CR character in the ASCII/ISO code system.
1 : The end code for protocol A or extended protocol A is an ETX character in the ASCII/ISO code system.

ASC 0 : All communication codes (except NC data) are of ISO code system.
1 : All communication codes (except NC data) are of ASCII code system.

(b) External I/O device or Host computer is in trouble

1) Check whether the setting on communication of external I/O device or host computer is the same as that of the CNC. (baud rate, stop bits,etc.) If they are not the same, change the setting.

2) When spare I/O device presents, check whether it is possible to realize communication using the spare I/O device.

(c) Cable between NC and I/O device is faulty.
Check the cable for disconnection or wrong connection.