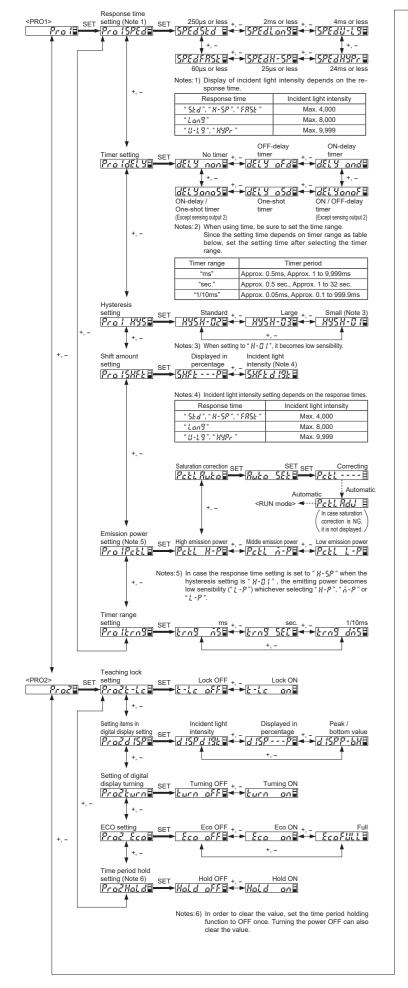
Panasonic PRO MODE OPERATION MANUAL

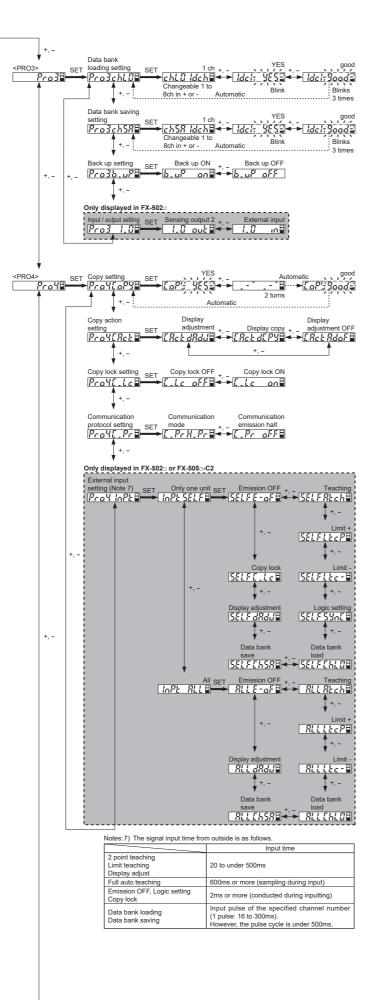
Digital Fiber Sensor Amplifier **FX-500** Series

MJE-FX500PROC No.0076-40V

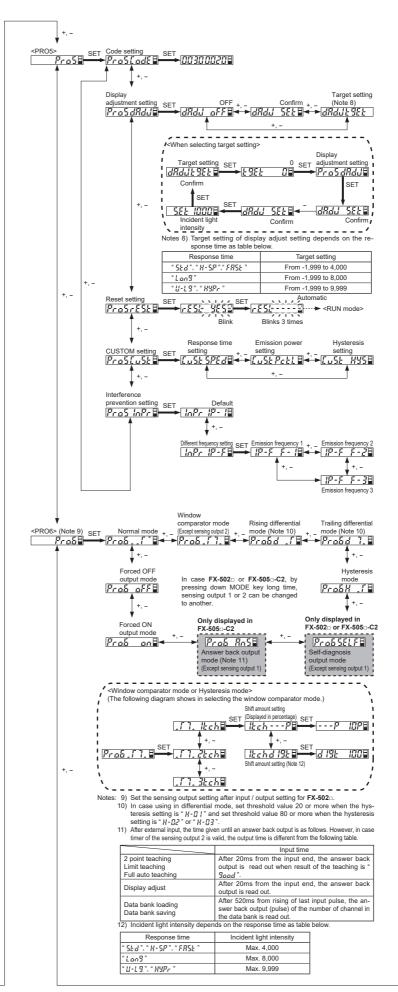
If you are using the <PRO3> data bank saving setting: After exiting all PRO mode settings, always execute the <PRO3> data bank saving setting to save the data.

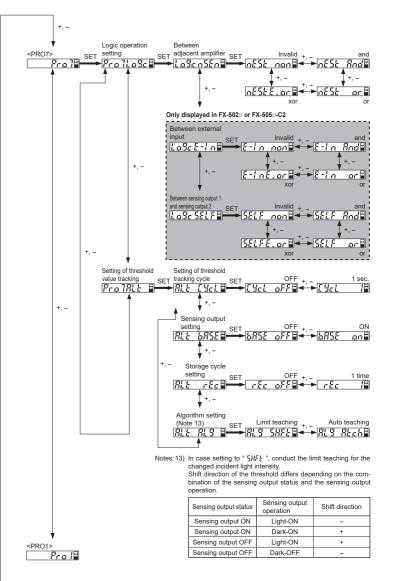
If you turn off the power without saving, the data will not be saved.











		Default	
	Item	setting	Description
	Response time setting	SPEdSEd	Set response time.
	Timer setting	qEFA vav	Set operation and period of the timer. Hysteresis can be set when the normal mode or the win-
	Hysteresis setting	H42H-02	dow comparator mode is selected.
mode	Shift amount	SHFEP	When setting to " \(\frac{1}{4} - \frac{17}{10} \) it becomes low sensibility. Set shift amount of threshold value in limit teaching.
PRO1 mode	setting	2016	Set emission power.
<u> </u>	Emission newer		" หืนเริญ": Saturated incident light intensity can be auto-
	Emission power setting	PctL H-P	matically adjusted (Note) " #-P": High emission power (25 to 100%)
			 - β ": Middle emission power (25 to 100%) - β ": Low emission power (25 to 100%)
	Timer range setting	trn9 is	
	Teaching lock setting	t-Lc off	Be able to prevent from wrong operation of teaching. " aFF": Teaching mode is valid
			" an": Teaching mode is invalid Incident light intensity can be displayed in percentage or
	Digital display item setting	d 15Pd 19E	the peak / bottom value can be displayed on the digital display (red).
_ n	Digital display	turn off	
PRO2 mode	turning on setting		Power consumption can be lowered.
302			" aff ": ECO OFF " an ": If any key operation is not carried out for 20 sec. in
ᇤ	ECO setting	Eco off	RUN mode, the digital display turns OFF. "FULL": If key operation is not done in 20 sec. or setting
			the key lock function in Run mode, all indicators
			turns OFF. " aFF": Peak / bottom value in the digital display refresh-
	Period hold setting	HoLd off	ing condition can be displayed. " Peak / bottom value in the hold condition can be
			displayed.
σ.	Data bank load- ing setting	chLO ldch	Load a setting from specified data bank.(1 to 8 channel)
mod	Data bank sav- ing setting	ch58 ldch	Save a setting to specified data bank. (1 to 8 channel)
PRO3 mode	Back up setting	b.uP on	Select to save or not to save the threshold value by teaching in EEPROM.
	Input / output setting	1.0 out	-
	(FX-502 □ only)		Using optical communications, be able to copy setting
	Copy setting	_	contents in main amplifier to all of the sub amplifiers con- nected from the main amplifier.
	., .		FX-502 □ cannot send or receive threshold value when conducting copy.
			Copy of items in display adjustment setting and incident light inten-
			sity are conducted or canceled by using optical communication. In case incident light intensity does not have enough margin, auto-
			matically set optimum value. "dRdd": Display adjustment of main amplifier and sub amplifiers
			can be conducted. Set to the target value of display adjustment in each
			amplifier. "d[P9": Incident light intensity of main amplifier can be copied
	Copy action setting	ERct dRdu 	to sub amplifier. However, when the difference between main amplifier and sub amplifier is big, it will not be cop-
			ied.
ode			"RdoF": Display adjust of main and sub amplifier can be set to OFF.
PRO4 mode			Do not press down the SET key many times when display is " #dpF". When " #dpF" is not displayed
PRC			in confirmation, also do not press down set key many times.
			When conducting the setting of copy setting or data bank loading / saving from the main amplifier via optical commu-
	Copy lock	C.Lc off	nications, it is possible that only the sub amplifier which is
	setting	rre orr	contents.
			However, even if copy lock ON " is set, the copy action setting is communicated.
	C		When conducting the copy setting or setting of data bank loading / saving from the main amplifier via optical communi-
	Communication protocol setting	C.Pr.H.Pr	cations, the optical communications through a sub amplifier which is set to communication emission halt " Γ P_{Γ} $_{\Omega}FF$ "
	Estamation 4		and the following sub amplifiers can be halted.
	External input setting		
	Only FX-502 □,	InPt SELF	Set external input.
	\ FX-505□-C2 /		Consistent setting can be done by inputting 8-digit code
	Code setting	00300020	instead of independent setting. In addition, present setting can be confirmed.
			Set incident light intensity to target value. If conducting display adjustment setting when incident light inten-
ode			sity does not have enough margin, " [[][][" " is blinked
PRO5 mode	Display adjust- ment setting	dRdJ oFF	
PR			from the set of target setting. " L GEL ": Set incident light intensity to value you want (neg-
		<u> </u>	ative side). In case setting to 0-adjustment, set to 0.
	Reset setting		If setting to " 4£5," returns to default settings (factory settings).
Note:	Depending on the ope		Select an item in CUSTOM mode to display. s. the automatic adjustment function may not implement saturation

	Item	Default setting			Description	on	
PRO5 mode	Interference prevention setting	InPr IP- I	pends function " #P -	I": Set whe tion fun Maximum head is ": Set whe function The max	e time of in en using the ction by op m adherend 12 units en using in by changir kimum adhe	nterference e interference otical common ce mounting	prevention ce preven nunication g of senso prevention frequency ting by set
PRO6 mode	Sensing output mode	Prob	mode. """ Sets """ Only dete """ Only dete """ Only Copt Con Sets "" "" "" "" "" "" "" "" "" "" "" "" ""	" (Normal r a threshold ": Windo to sensing out the threshold to the threshold threshold the threshold thr	mode) I value for Cow comparautput 2 of Food values red range of selection in cides in incides in i	DN / OFF op tator mode X-502□, FX and judge or not. This on hing. hode) ent light int mode) lent light int mode) lent light int mode) FX-505□-C but t mode) except sensi t toward ext ut mode DN. but mode but mode but mode	peration. -505::-C2; s they are can be see tensity are change of peaching. 2 but ex-
PRO6 mode	Logical operation setting	Lagensen	metho "n5Er "E-Ir "SELF	betweer ing outp The cald and this ing outp ": Logical an uppe logical output a vice. (Only dis ": Logical duct log and sen	xor). operation is ice and core the sensification responding to the sensification responding to the sensification responding to the sensification is adjacent operation is splayed in Financial operation is ical operation is ical operation is splayed in Financial operation in Financial operation is splayed in Financial operation in Financial operation in Financial operation is splayed in Financial operation in Financial operation in Financial operation is splayed in Financial operation	s sensing of aduct logica ng output 1 device. ult of upper output from product. s sensing of amplifier are between the g output 1 of	output 1 of loperations and sensor amplifier in the sensor output 1 of donduce e sensing of this de (2-505 – C2 the output 1).
	Setting of threshold value tracking	[Ycl off	on the tions of	ode can cha cycle (1 to 9 of the incider t is the one	,999 sec.) that light inter	hat is set wit nsity. The tra	h the varia
	Sensing output setting	bRSE off	is OFF	s whether tr or when the	e output is (ON.	
	Storage cycle setting	rEc off		s a threshol 60 times.	d storage c	ycle in EEP	ROM fron
	Algorithm setting	RL9 SHFE	When followed more,	setting to I ed up on the when setti be followed	e bases of ing to auto	shift amour teaching,	nt. Further threshold

FX-501 / Code setting table

Green digital display (right side is the first digit)

Code	Forth digit	Code	Third digit	Code	Second digit	Code	First digit	
රි	Sensing output operation mode	ဝိ	Timer operation	ပိ	Timer period	රි	CUSTOM setting	
ü	Light-ON	ü	No timer	O	0.5ms	ü	Response time setting	
1	Dark-ON	1	OFD	1	1ms	- 1	Emission power setting	
2	_	2	OND	2	3ms	2	Hysteresis setting	
3	_	3	ONOF	3	5ms	3	_	
Ч	_	Ч	OSD	ч	10ms	Ч	_	
5	_	5	ONOS	5	30ms	5	_	
Б	_	Б	_	Б	50ms	5	_	
7	_	7	_	7	100ms	7	_	
8	_	8	_	8	300ms	8	_	
9	_	9	_	3	500ms	9	_	
R	_	R	_	R	1 sec.	8	_	
Ь	_	Ь	_	Ь	2 sec.	Ь	_	
Ľ	_	Ľ	_	Ľ	3 sec.	Ľ	_	
d	_	ď	_	ď	4 sec.	d	_	
Ε	_	Ε	_	Ε	5 sec.	Ε	_	

OFD: OFF-delay timer, OND: ON-delay timer, ONOF: ON / OFF-delay timer, OSD: One-shot timer ONOS: ON-delay / One-shot timer

• Red digital display (right side is the first digit)

0	Forth digit		Ф	Third digit			Second digit	Ф	First digit
Code	Copy lock setting	Hysteresis setting	Code	Setting items in digi- tal display setting	Back up setting	Code	Response time setting	Code	Sensing output setting
O	Copy lock OFF	H-02	O	Incident light intensity	Back up ON	ü	H-SP	ü	Normal mode
1	Copy lock ON	H-02	1	Incident light intensity	Back up OFF	1	FAST	1	WC mode
2	Copy lock OFF	H-03	2	Displayed in percentage	Back up ON	2	STD	2	Rising differ- ential mode
3	Copy lock ON	H-03	3	Displayed in percentage	Back up OFF	3	LONG	3	Trailing differ- ential mode
ч	Copy lock OFF	H-01	ч	Peak / bottom value	Back up ON	Ч	U-LG	Ч	HYS mode
5	Copy lock ON	H-01	5	Peak / bottom value	Back up OFF	5	HYPR	5	_

(WC mode: Window comparator mode, HYS mode: Hysteresis mode)

FX-502 / Code setting table

Green digital display (right side is the first digit)

• Green digital display (right side is the first digit)											
	Forth digit			Thire	d digit	Code	Second digit		First digit		
Code	Sensing output operation mode		Code	Timer operation			Timer period	Code	CUSTOM settino		
Ľ	Sensing output 1	Sensing output 2		Sensing output 1	Sensing output 2		Tilliel pellou	Ľ	COSTOM SELLING		
ü	Light-ON	Light-ON	ü	No timer	No timer	ü	0.5ms	ü	Response time setting		
1	Light-ON	Dark-ON	1	OFD	No timer	1	1ms	1	Emission power setting		
2	Dark-ON	Light-ON	2	OND	No timer	2	3ms	2	Hysteresis setting		
3	Dark-ON	Dark-ON	3	ONOF	No timer	3	5ms	3	_		
ч	_	_	Ч	OSD	No timer	Ч	10ms	Ч	_		
5	_	_	5	ONOS	No timer	5	30ms	5	_		
Б	_	_	5	No timer	OFD	Б	50ms	5	_		
7	_	_	7	No timer	OND	7	100ms	7	_		
8	_	_	8	No timer OSD		8	300ms	8	_		
3	_	_	9	_	_	9	500ms	3	_		
R	_	_	Я	_	_	R	1 sec.	R	_		
Ь	_	_	Ь	_	_	Ь	2 sec.	Ь	_		
Ε	_	_	Ľ	_	_	Ľ	3 sec.	Ľ	_		
ď	_	_	d			ď	4 sec.	ď	_		
Ε	_	_	Ε	_	_	Ε	5 sec.	Ε	_		

(OFD: OFF-delay timer, OND: ON-delay timer, ONOF: ON / OFF-delay timer, OSD: One-shot timer ONOS: ON-delay / One-shot timer

• Red digital display (right side is the first digit)

ө	Forth digit		9	Third digit			Second digit	е	First digit	
Code	Copy lock setting	Hysteresis setting	Code	Setting items in digi- tal display setting	Back up setting	Code	Response time setting	Code	Sensing output setting (Note)	
ü	Copy lock OFF	H-02	ü	Incident light intensity	Back up ON	ü	H-SP	ü	Normal mode	
1	Copy lock ON	H-02	1	Incident light intensity	Back up OFF	1	FAST	1	WC mode	
2	Copy lock OFF	H-03	2	Displayed in percentage	Back up ON	2	STD	2	Rising differ- ential mode	
3	Copy lock ON	H-03	3	Displayed in percentage	Back up OFF	3	LONG	3	Trailing differ- ential mode	
Ч	Copy lock OFF	H-01	ч	Peak / bottom value	Back up ON	ч	U-LG	Ч	HYS mode	
5	Copy lock ON	H-01	5	Peak / bottom	Back up OFF	5	HYPR	5	_	

(WC mode: Window comparator mode, HYS mode: Hysteresis mode) Note: It is a setting only for sensing output 1. Sensing output 2 cannot be set.

FX-505 -C2 / Code setting table

Green digital display (right side is the first digit)

	Forth	digit		Third	l digit		Second digit		First digit
Code	Forth digit Sensing output operation mode		Code			Code	Second digit	de	i iist digit
Ö			õ		peration	õ	Timer period	Code	CUSTOM setting
$oxed{oxed}$	Sensing output 1	Sensing output 2		Sensing output 1	Sensing output 2				
a	Light-ON	Light-ON	Ω	No timer	No timer	Ü	0.5ms	ü	Response time setting
1	Light-ON	Dark-ON	1	OFD	No timer	- 1	1ms	1	Emission power setting
2	Dark-ON	Light-ON	2	OND	No timer	2	3ms	2	Hysteresis setting
3	Dark-ON	Dark-ON	3	ONOF	No timer	3	5ms	3	_
ч	_	_	Ч	OSD	No timer	Ч	10ms	Ч	_
5	_	_	5	ONOS	No timer	5	30ms	5	_
5	_	_	5	No timer	OFD	5	50ms	5	_
7	_	_	7	No timer	er OND		100ms	7	_
8	_	_	8	No timer	er OSD		300ms	8	_
3	_	_	9	_	_	9	500ms	9	_
R	_	_	R	_	_	R	1 sec.	R	_
Ь	_	_	Ь	_	_	Ь	2 sec.	Ь	_
Ľ	_	_	Ľ	_	_	Ľ	3 sec.	Ľ	_
d	_	_	ď	_	_	d	4 sec.	d	_
Ε	_	_	Ε	_	_	Ε	5 sec.	Ε	_

OFD: OFF-delay timer, OND: ON-delay timer, ONOF: ON / OFF-delay timer, OSD: One-shot timer ONOS: ON-delay / One-shot timer

• Red digital display (right side is the first digit)

Forth digit			Third	l digit		Second digit		First	digit	
Code	Copy lock	lock Hysteresis \aleph		Setting items in digital dis-		Code	Response	Code	Sensing output setting	
	setting	setting		play setting			time setting		Sensing output 1	Sensing output 2
ü	Copy lock OFF	H-02	Ü	Incident light intensity	Back up ON	П	H-SP	П	Normal mode	Normal mode
1	Copy lock ON	H-02	1	Incident light intensity	Back up OFF	1	FAST	1	Normal mode	Rising differ- ential mode
2	Copy lock OFF	H-03	2	Displayed in percentage	Back up ON	2	STD	2	Normal mode	Trailing differ- ential mode
3	Copy lock ON	H-03	3	Displayed in percentage	Back up OFF	3	LONG	3	Normal mode	HYS mode
ч	Copy lock OFF	H-01	ч	Peak / bot- tom value	Back up ON	Ч	U-LG	Ч	Normal mode	Self-diagnosis output mode
5	Copy lock ON	H-01	5	Peak / bot- tom value	Back up OFF	5	HYPR	5	Normal mode	Answer back mode
Б	-	-	8	_	_	5	_	5	WC mode	Normal mode
7			7	_	_	7	_	7	WC mode	HYS mode
8	_	_	8	_	_	8	_	8	Rising differ- ential mode	Trailing differ- ential mode
9	_	_	9	_	_	9	_	9	HYS mode	Normal mode

(WC mode: Window comparator mode, HYS mode: Hysteresis mode)

Panasonic Corporation

Panasonic Industrial Devices SUNX Co., Ltd.

https://panasonic.net/id/pidsx/global
Please visit our website for inquiries and about our sales network.

PRINTED IN CHINA

© Panasonic Industrial Devices SUNX Co., Ltd. 2021

Note: Depending on the operating conditions, the automatic adjustment function may not implement saturation correction. If the saturation correction applied by the automatic adjustment function does not work properly, manually set the emission power.