雙數顯放大器

DIGITAL FIBER AMPLIFIER
BR301 Series
User Manual

RiKO www.riko.com

Output Indicator — L.on / D.on Switch — Mode Switch

Mode Switch
RUN — FUN. SET

Red : Singnal Level — Green : Threshold — Operation Panel

MODE | SETTING

RUN — FUN. SET (Select to "FUN")

DETECT POIINT
dEt Pnt

1 Pnt Default Set

Swing to + / Swing to –

Push down ADJ 2 sec

1 Pnt
2 Pnt
3 ArEA

① 1 point setting (Select to SET mode for Threshold level setting and adjustment.)

② 2 point setting
Display shows the signal level and awaiting the ADJ to press.
1 Pt 982 → 2 Pt 960 → F.nL 971
Push down ADJ 2 sec. for 1 point set confirm.
Push down ADJ 2 sec. for 2 point set confirm.
Average value from two setting point.

③ area setting
1 Pt 1000 → 2 Pt 2000 → 1000 2000
Display shows 1 and 2 set points.

1 point set confirm
dEt Pnt

dEt Pnt

POWER OUTPUT
rESP SPd
200 uS ⇄ 500 uS ⇄ 1000 uS ⇄ 5000 uS → rESP SPd
Push down ADJ 2 sec
done setting

HYSTERESIS
HYSt SEt
Push down ADJ 2 sec
Display shows the hysteresis value and awaiting the + – ADJ to press.
31 31
Swing + – changes the green parts(set value)
31 55
previous set / new set
Push down ADJ 2 sec
HYSt SEt done setting
setting range : 6~250

ON DELAY On dEL
OFF DELAY OFF dEL
ON ONE SHOT On 1Sht
OFF ONE SHOT OFF 1Sht

Swing + – to change the set value.
0~9999ms
dELt 0 → dELt 100
Push down ADJ 2 sec
Push down ADJ 2 sec
done setting

One mode choose only.
On dEL
OFF dEL
On 1Sht
OFF 1Sht

INVERTED DISPLAY
d.SP rEAd → d.SP 1234 ⇄ hE2l dS'P → d.SP rEAd
Push down ADJ 2 sec
Push down ADJ 2 sec
done setting

FACTORY DEFAULT
FctY dEF → FctY no ⇄ FctY YES → FctY dEF
Push down ADJ 2 sec
Push down ADJ 2 sec
done setting
dEt Pnt

Note: Factory default setting:
❶ Threshold level set on 600
❷ 1 point setting
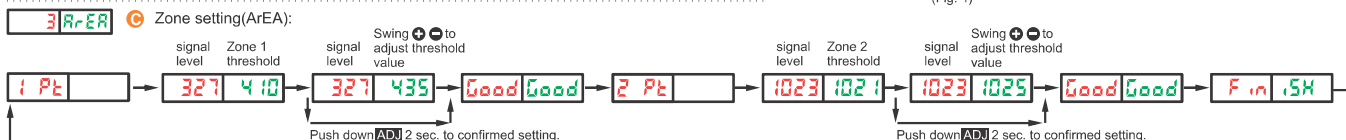❸ Response speed set on 500us
❹ Hysteresis value set on 6

Select to "SET"

1 Pnt Ⓐ point setting, push down "ADJ" 2 sec., signal and threshold will display same value, then the setting is done. "Fig. 1"
A-1. Swing "+" & "-" to adjust threshold value, after display shows good then the setting is done. "Fig. 2 or 3"

2 Pnt Ⓑ points setting, threshold shows average value from 2 points setting. Signal level shows the present value. "Fig. 4"
B-1. Swing "+" & "-" to adjust threshold value. (same as 1 point setting)
B-2. Push down "ADJ" 2 sec., restart 2 points setting.

signal threshold
1023 1023
(Fig. 1)

Swing + twice
1023 1025 → Good Good → 1023 1025
(Fig. 2)

Swing – twice
1023 1021 → Good Good → 1023 1021
(Fig. 3)

signal threshold
1023 1023
(Fig. 4)

3 ArEA Ⓒ Zone setting(ArEA):

signal level / Zone 1 threshold
Swing + – to adjust threshold value
1 Pt → 327 410 → 327 435 → Good Good → 2 Pt → 1023 1021 → 1023 1025 → Good Good → F in.5H

signal level / Zone 2 threshold
Swing + – to adjust threshold value

Push down ADJ 2 sec. to confirmed setting.
Push down ADJ 2 sec. to confirmed setting.

Fiber Amplifier
Digital Fiber Amplifier
Array Fiber Optic
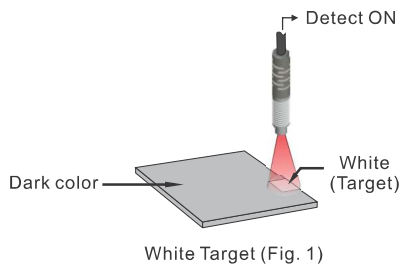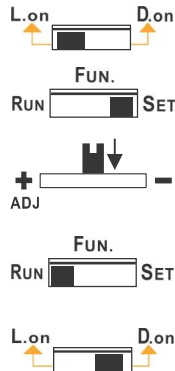Anti-Bending Fiber Optic
Plastic Fiber Optic
Glass Fiber
Light Guide
Silica Fiber
Accessories

◎ Diffuse model Setting

1. Set to L.on position

2. Select to "SET"

3. With Target, Push down "ADJ" 2sec, Auto-Teaching done after blinking stopped. (Fig. 1)

4. Finished setting, Return to "RUN"

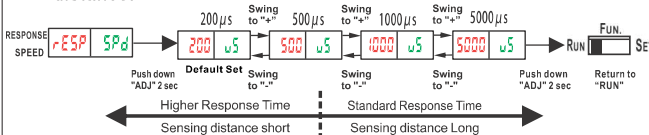5. If need opposite operating detection, change to D.on position.

L.on □ D.on
FUN.
RUN □ SET
＋ □ － ADJ
FUN.
RUN □ SET
L.on □ D.on

Detect ON

Dark color — White (Target)

White Target (Fig. 1)

◎ Through-Beam model Setting

1. Set to D.on position

2. Select to "SET"

3. No Target, Push down "ADJ" 2sec, Auto-Teaching done after blinking stopped. (Fig. 2)

4. Finished setting, Return to "RUN"

5. If need opposite operating detection, change to L.on position.

L.on □ D.on
FUN.
RUN □ SET
＋ □ － ADJ
FUN.
RUN □ SET
L.on □ D.on

No Target (Fig. 2)
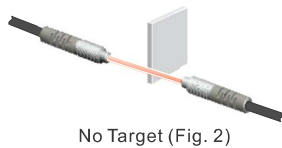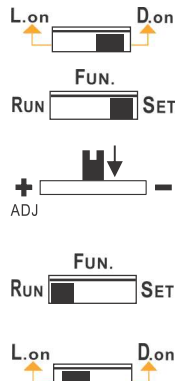
◎ Response Time & Sensing Distance:

※ Refer to working area, set to correct response time & sensing distance.

RESPONSE SPEED r E 5 P 5 P d

200μs Swing to "+" 500μs Swing to "+" 1000μs Swing to "+" 5000μs

200 u5   500 u5   1000 u5   5000 u5   RUN FUN. SET

Push down "ADJ" 2 sec Default Set Swing to "-" Swing to "-" Swing to "-" Push down "ADJ" 2 sec Return to "RUN"

Higher Response Time ◄——— Standard Response Time

Sensing distance short ——— Sensing distance Long ►

## ◎ Precautions for correct use :

* Be sure to mount amplifiers to a DIN rail and use end units on both sides when more than two units are connected. Note the ambient temperature when using in a sealed machine box.
* Be sure to turn off the power before wiring finished.
* Don't operate the amplifier in the same conduit as power cord or high voltage wire. Use separate conduit to avoid noise immunity and malfunction.
* Check the power cord to make sure the power supply matches the rated voltage.
* Connect the ground terminal to the ground when used with a switch.
* Don't use it outdoors or at a place where outside light can irradiate the receiver directly.
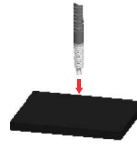
◎ Diffuse model Example of 2-point Teaching

Setting threshold according to targets and environments in any condition :
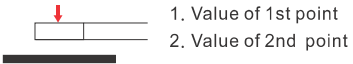1st point : Setting with target.
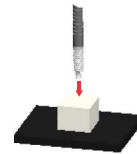
2nd point : Remove target and set up again.

Threshold ------ 1. Value of 1st point
2. Value of 2nd point

Threshold appears between values of 1st point and 2nd point.

◎ Diffuse model Example of Zone setting

1. Value of 1st point
2. Value of 2nd point

You can set any value for 1st or 2nd point, output works only on value between 2 points.

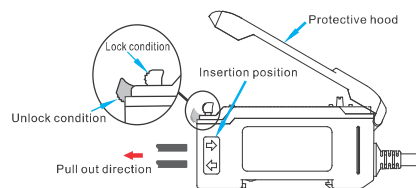## ◎ Fiber cables fixing operation:

1. Insert the fiber cables
* Open the protective hood and tilt the fiber lock lever to release the lock condition. Referring to the side seal of insertion position, fully insert the fiber cables into the mounting holes until the limit. Pull the fiber lock lever back to lock the cables.

2. Tilt the fiber lock lever to release the lock condition.

4. Pull the fiber lock lever back to lock the cables.

1. Open the protective hood.

5. Close the protective hood.

3. Insert the fiber cables.

Insertion depth : 12 mm
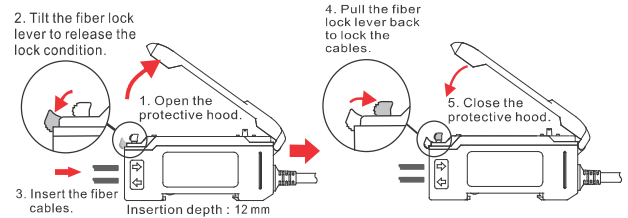
2. Pull out the fiber cables
* Open the protective hood and tilt the fiber lock lever to release the lock condition. Pull the fiber cables straight out from the mounting holes.

Lock condition

Protective hood

Insertion position

Unlock condition

Pull out direction

⚠ 1. To protect the fiber cables from incorrect operation, **be sure to tilt the fiber lock lever to release the lock condition before pulling out the fiber cables.**
2. Pull up the protective hood forcefully may damage the fixing pin of the hood (**not exceed 180 degrees**).

RiKO