





*Please read this manual thoroughly before use.
Retain this manual for future reference.*

Taikan MDU Distribution Amplifier Owner's Manual

This manual is intended for use by purchasers of Taikan's **AE86xx/20-x/x-x** series of amplifiers and their qualified technicians. This document is the property of Taikan Company Inc. ("Taikan") and embodies proprietary subject matter.

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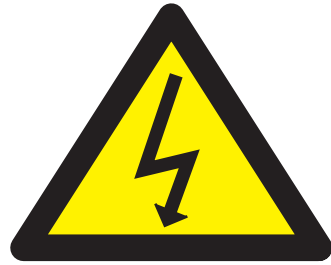
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SAFETY PRECAUTIONS



Note:

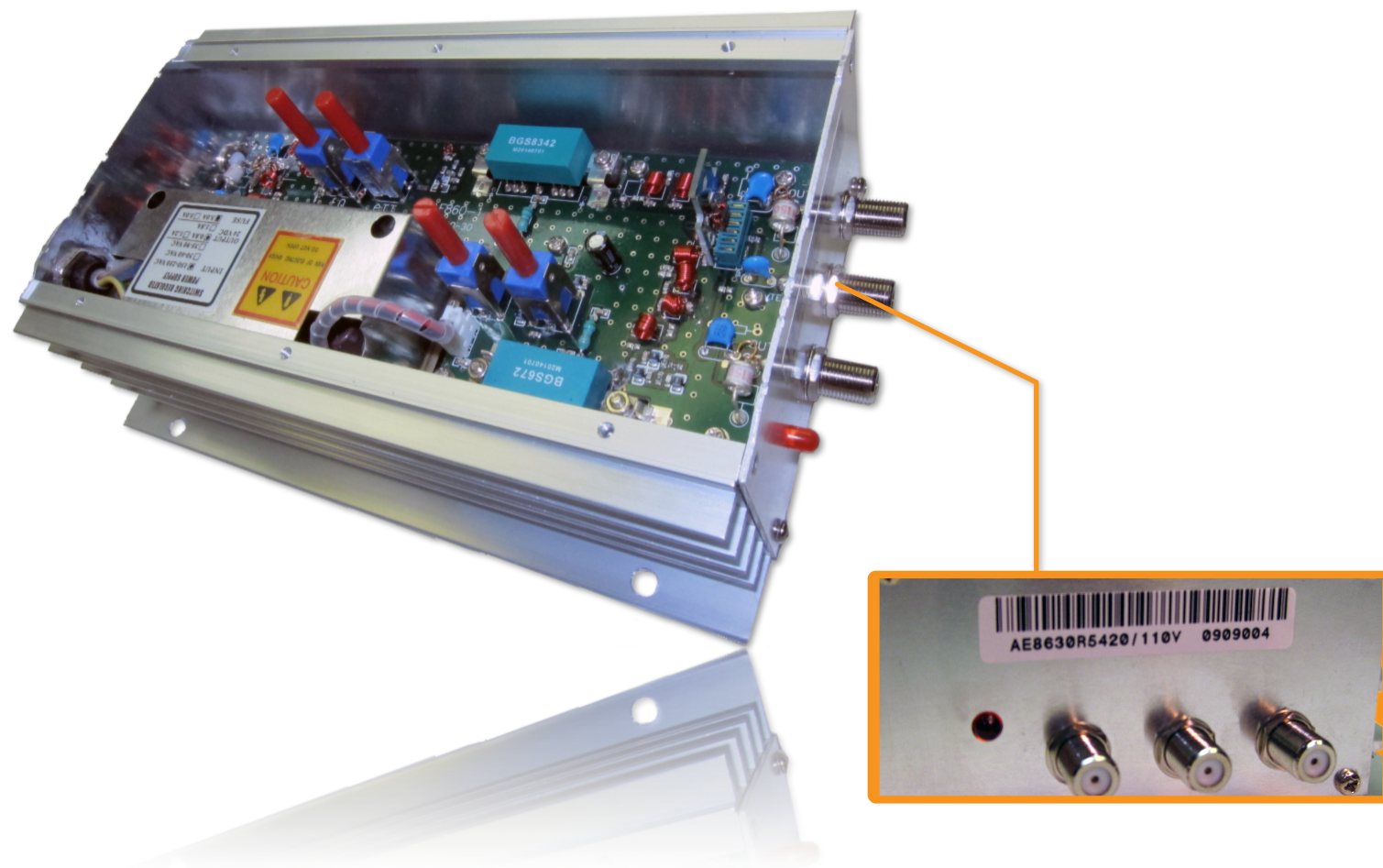
The unit must be well grounded to avoid thunder lightning shock of extraordinary high voltage damage.



Please be cognizant of all safety guidelines and adhere to the recommendations listed.

- > Read the user manual carefully before proceeding with any part of the installation.
- > Installation and operation of the product must be performed by qualified personnel and in accordance with applicable electrical codes.
- > Always use proper lifting techniques whenever handling this product to avoid injury.
- > Do NOT change any type of modules and transformer without confirmation from the manufacturer or it will void the warranty.
- > The product must be well grounded before proceeding with installation or operation. Failure to do so can cause electrical shock.
- > Product must be ventilated and away from flammable, explosive, and corrosive material.
- > Wiring of the product and connection of output ports must be firm and reliable. Poor connection of products may cause a fire.
- > Verify the input voltage of the product and then give the product correct input voltage **BEFORE** powering it on.
- > If any parts need to be replaced notify a Taikan representative at support@taikan.com
- > Unauthorized alteration or inappropriate repair is **NOT** allowed and may cause irreparable damage to product. Taikan does not assume any responsibility for these modifications.

SECTION ONE // INTRODUCTION



PRODUCT SUMMARY

Taikan's **AE86xx/20-x/x-x** has been specifically designed for use in multi dwelling environments such as hospitals, apartment complexes, and hotels.

This high gain unit has a bandwidth of 860 MHz, allowing effective transmission of large volumes of data within the CATV network. The built-in equalizer and attenuator (gain/tilt) allow for increased flexibility and easy adjustment of the signal output.

The unit includes a European (65/85 MHz with 220 V) or US (42/54 MHz with 110 V) power adapter.

STANDARD FEATURES

- 40 dB or 30 dB Forward Gain. Active Return also Available at 20 dB
- Input and Output Test Ports
- Two Output Ports with Equal Amplification (Note: The AE8630 has an Option for either 30/30 Output or 30/10 dB Output)
- Continuously Adjustable Tilt and Gain Control
- Extremely Low Distortion and Harmonic Content
- Available in Various Diplex Options
- Suitable for HDTV, CATV, Off-air Analog, and Digital RF Distribution Applications

SECTION TWO // INSTALLATION

INSTALLATION NOTES

- > Installation of the product must be performed only by qualified personnel.
- > Strictly follow the installation directions.
- > Installation of the product must be firm and thorough so as to prevent falling from the installation location. Failure to do so can damage the product.

Taikan does **NOT** assume any responsibility for the installation of the product.

1 Switching on the power supply:

Before connecting the plug to the 220 V or 110 V power supply, you must ensure that the unit is well grounded in order to avoid any damaged static load, such as to the module, etc.

2 Adjusting the output level::

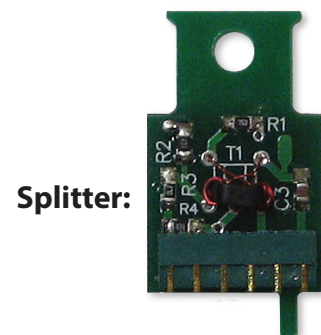
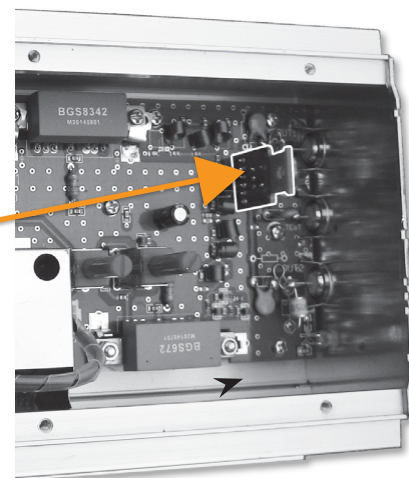
Use 72 dB μ V CATV signal input level. You can adjust the gain with the attenuator to reach an output level of 102 dB μ V, which is the amplifiers rated signal level. The high-frequency signal is adjustable with the variable equalizer EQ to get a suitable equalization.

CHANGING THE SPLITTER

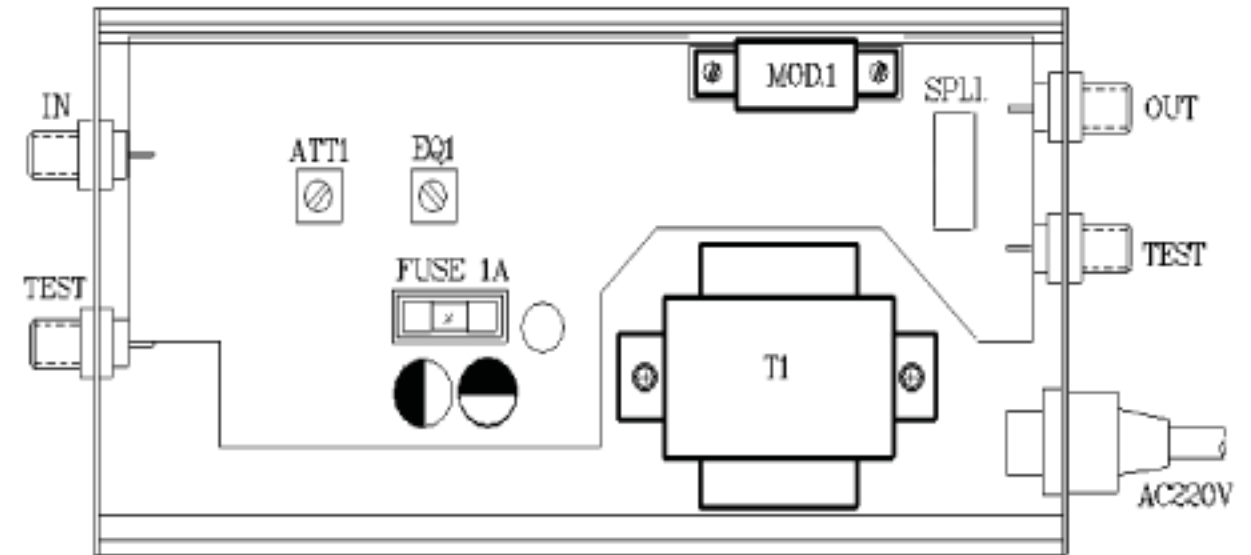
Taikan's **AE86xx/20-x/x-x** comes with an unbalanced splitter (50/30dBmV output), preinstalled in the unit and a balanced splitter (50/50dBmV output), in the box.

To change the splitter follow these instructions:

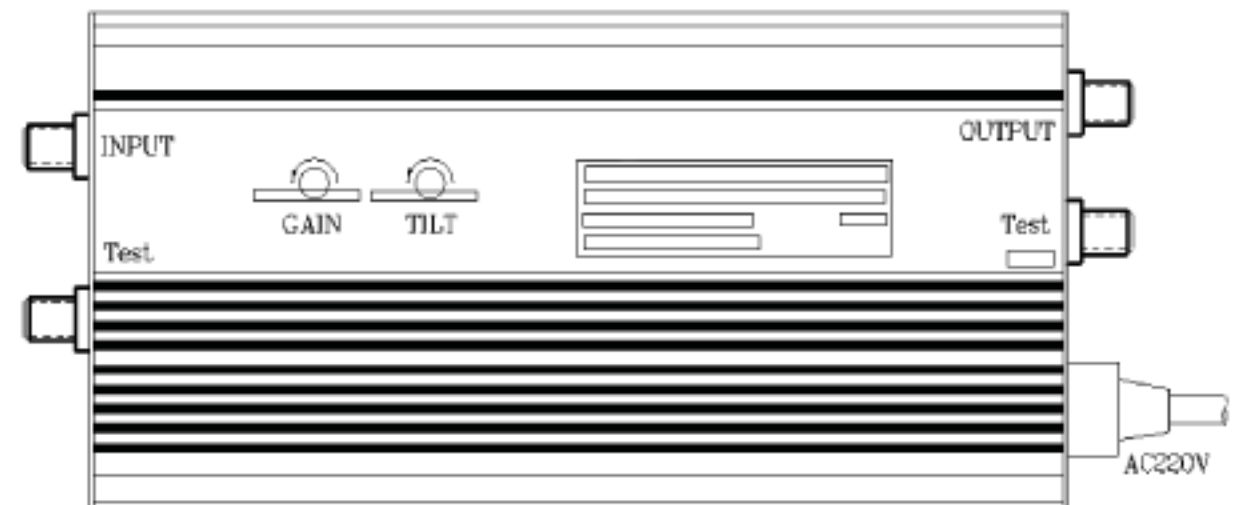
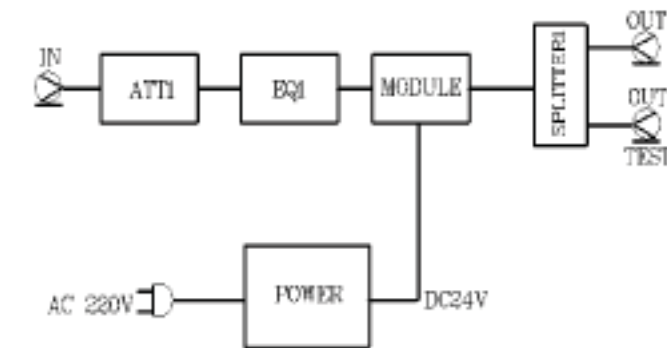
1. Open unit by unscrewing the 6 screws on the top of the unit
2. Open the top
3. Pull splitter straight up (see illustration)
4. Replace alternative splitter in exact location
5. Replace top of unit and screws securely



SECTION THREE // DIAGRAMS



CATV Amplifier Block Diagram



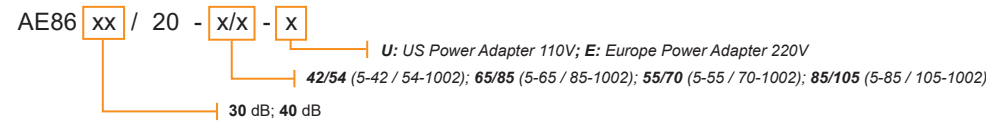
SECTION FOUR // NOMINAL SPECIFICATIONS

SECTION FIVE // RETURN & WARRANTY

NOMINAL SPECIFICATIONS

Model Number	Standard Carton	Dimensions	Carton Weight
AE86xx/20-x/x-x	1 pc	23 x 14 x 6.5 cm (9 x 5.5 x 2.5 in.)	1 kg (2.2 lb)

Ordering Information



Specifications

Forward (Downstream) Frequency	54 - 860	MHz	Equalizer Adjustment (EQ)	0 - 20.0	dB
Frequency Response	± 0.75	dB	Attenuator Adjustment (ATT)	0 - 20.0	dB
Forward (Downstream) Gain	30 or 40 ± 1.5	dB	Input & Output Impedance	75	Ohms
Passband Flatness	± 1.0	dB	Impedance Test Point	-20	dB
Input Return Loss	≥ 15	dB	Connector:	Input, Output, & Test Points (all "F" type)	
Output Return Loss	≥ 15	dB	Power Supply:	190 ~ 230 VAC or 110 VAC	
Forward (Downstream) Noise Figure	< 6.0	dB	Operating Temperature:	-10 ~ 50 °C (14 ~ 122 °F)	
Return (Upstream) Frequency	5 - 42	MHz	AC Fuse (Internal):	1 A	
Return (Upstream) Gain	20 ± 1.5	dB			
Return (Upstream) Noise Figure	< 8.0	dB			

PRODUCT RETURN PROCEDURE

If you need to return the product for repair, please follow these steps:

1. Contact a Taikan Representative at support@taikan.com to obtain a Return Authorization Number.
2. When returning the product for repair include the following information:
 - > Return Authorization Number
 - > Model Number
 - > Serial Number
 - > Reason for Return
3. Prior to repairing the device, Taikan will inform you about the test results and/or any additional repair charges that may apply. Once we have received your confirmation we will proceed with the repair.
4. The repair period will depend on the severity of the problem.
5. After it is returned, the product will still be under its original warranty. The repair component(s) is under warranty for 90 days after you have received the repaired product. (see below)

STANDARD TAIKAN PRODUCT WARRANTY

Taikan provides a limited one year Warranty ("Warranty") to original purchaser on its product against manufacturing defect and workmanship under normal use and service. During the Warranty period Taikan will repair or replace the product to correct defects in material and workmanship.

This Warranty shall not apply to a product which has been altered in any way so as to affect its stability or durability, nor which has been subject to misuse or negligence. This Warranty does not cover a product which has been damaged by severe weather conditions such as extreme wind, ice, storms, lightning, or other natural weather conditions over which Taikan has no control.

Claimants under this Warranty shall present their claim along with the defective product to Taikan. Non-compliance with any part of this claim procedure may invalidate this Warranty in whole or part.

This Warranty is expressly in lieu of all other agreements and warranties, expressed or implied. Taikan does not authorize any person to assume for it the obligations contained in this Warranty and neither assumes nor authorizes any representative or other person to assume for it any other liabilities in connection with the product delivered or provided.

In no event shall Taikan be liable for any loss of profits, loss of use, interruption of business, or indirect, consequential damages of any kind. Taikan will not be liable for damages in any amount greater than the purchase price of the product.