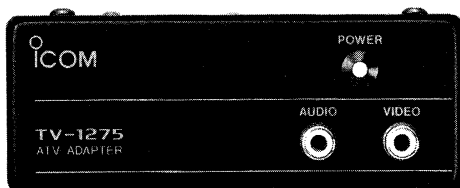


ICOM

INSTRUCTION MANUAL

ATV ADAPTER **TV-1275**



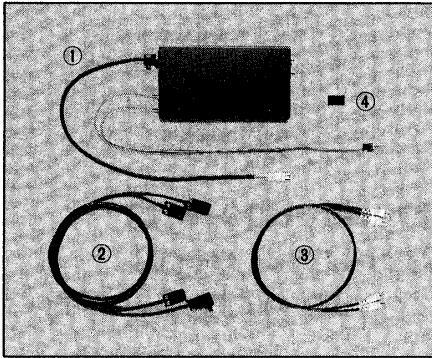
Icom Inc.

FOREWORD

Icom's **TV-1275 ATV ADAPTER** is designed to meet ATV (amateur television) operation with the IC-1275A/E. Find out now what all the excitement is about with visual communications by owning a **TV-1275**.

Feel free to contact your nearest authorized Icom Dealer or Service Center if you have questions regarding the operation or capabilities of the TV-1275.

UNPACKING



The TV-1275 and accessories: Qty.

① TV-1275	1
② TV antenna cables	2
③ Video cable	1
④ Short pin	1
⑤ PAL system antenna connector*	1

* Europe and Australia versions only.
Not shown in the photograph.

TABLE OF CONTENTS

1 REQUIRED VIDEO EQUIPMENT	1	4-2 TV-1275 and video equipment interconnections	4
2 PANEL DESCRIPTION	2	4-3 Combination connections	5
3 INTERNAL ADJUSTMENTS	3	5 OPERATION	7 ~ 8
4 INTERCONNECTIONS	4 ~ 6	5-1 ATV receiving	7
4-1 TV-1275 and IC-1275A/E connections	4	5-2 ATV transmitting	8
		6 SPECIFICATIONS	9
		SCHEMATIC DIAGRAM AND BLOCK DIAGRAM	SEPARATE

REQUIRED VIDEO EQUIPMENT

The following video equipment is required for ATV operation. Read through the directions in each instrument's instruction manual before connecting them.

(1) ATV receiving

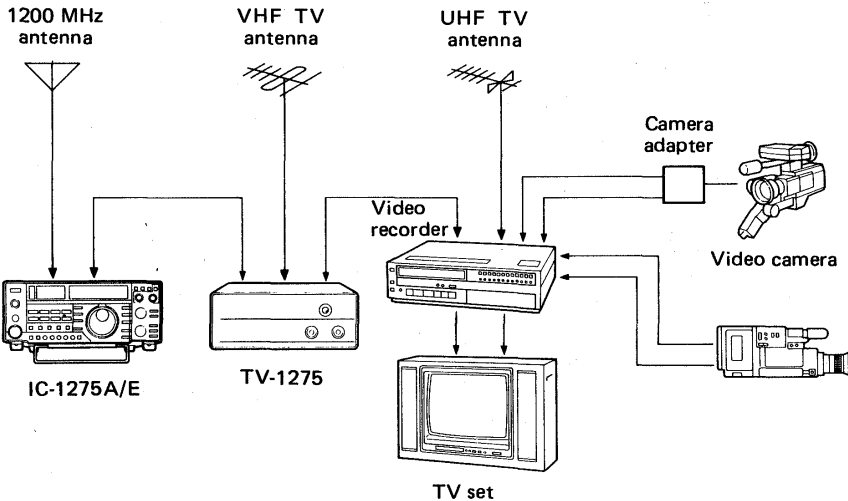
Use a TV set that has a VHF antenna connector. (pgs. 4, 6).

Each version of the TV-1275 outputs VHF TV signals according to each domestic TV system. (p. 3)

(2) ATV transmitting

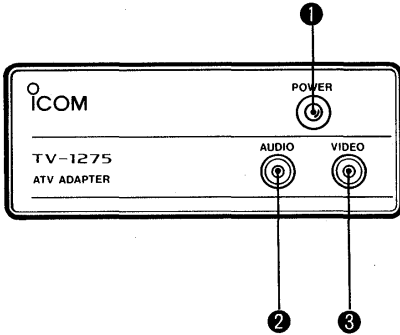
Use a video camera that has video and audio output jacks.

When a video recorder is used, you can record received signals and transmit pre-recorded video tapes. Connect a video recorder that has a video and audio input and output jack, if required. (pgs. 4, 5)

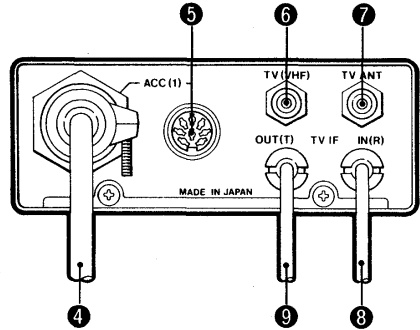


PANEL DESCRIPTION

Front panel



Rear panel



- | | |
|---|---|
| <p>① POWER INDICATOR [POWER]</p> | <p>Lights up in green while receiving and in red while transmitting.</p> |
| <p>② AUDIO INPUT JACK [AUDIO]</p> | <p>Connects to the audio output jack of a video recorder or video camera.</p> |
| <p>③ VIDEO INPUT JACK [VIDEO]</p> | <p>Connects to the video output jack of a video recorder or video camera.</p> |
| <p>④ ACC(1) CABLE [ACC(1)]</p> | <p>Connects to [ACC(1)] on the IC-1275A/E.</p> |
| <p>⑤ ACC(1) SOCKET [ACC(1)]</p> | <p>Parallel connects to [ACC(1)]. Use this socket when connecting another optional unit to the IC-1275A/E.</p> |
| <p>⑥ TV (VHF) OUTPUT JACK [TV(VHF)]</p> | <p>Connects to the VHF antenna connector of a TV set or video recorder using the supplied TV antenna cable.</p> |
| <p>⑦ TV ANTENNA JACK [TV ANT]</p> | <p>Connects to a VHF TV antenna.</p> |
| <p>⑧ TV IF INPUT CABLE [TV IF IN(R)]</p> | <p>Connects to [TV IF OUT(R)] on the IC-1275A/E.</p> |
| <p>⑨ TV IF OUTPUT CABLE [TV IF OUT(T)]</p> | <p>Connects to [TV IF IN(T)] on the IC-1275A/E.</p> |

INTERNAL ADJUSTMENTS

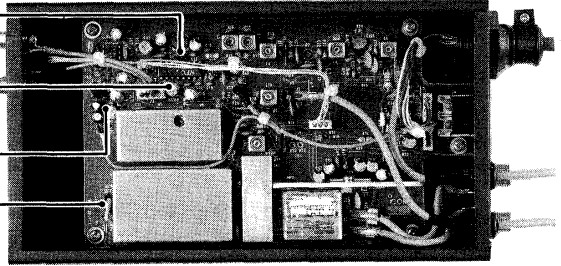
3

J10: A5/A9 mode selection
Short : A5, Open : A9

R1: Audio gain adjustment

R2: Video gain adjustment

S1: Output channel select switch
H : High channel
L : Low channel



NOTE: NEVER adjust any coils or variable resistors except as described below. All adjustment points were adjusted prior to the TV-1275 leaving the factory.

To remove the bottom cover, unscrew the 2 screws on the rear panel.

(1) A5/A9 mode selection

The TV-1275 operates in either A5 or A9 mode.

A5 mode	Only video signals are transmitted.
A9 mode	Both video and audio signals are transmitted.

- To select A5 mode operation, short J10 using the supplied short pin.

(2) Output channel selection

The TV-1275 outputs on either the High or Low channel to a TV set or video recorder.
(See chart on p. 9.)

- If the Low channel is employed for broadcasting in your area, set the output channel to the High channel.

(3) Audio gain adjustment

If the audio level on your TV set is too low or too high during transmission, adjust R1.

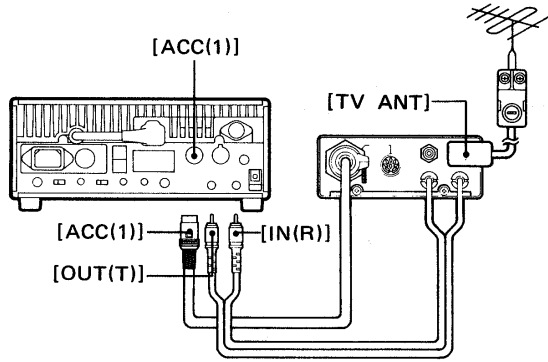
(4) Video gain adjustment

If the picture on your TV set is too bright or too dark during transmission, adjust R2 to produce a clear picture.

4

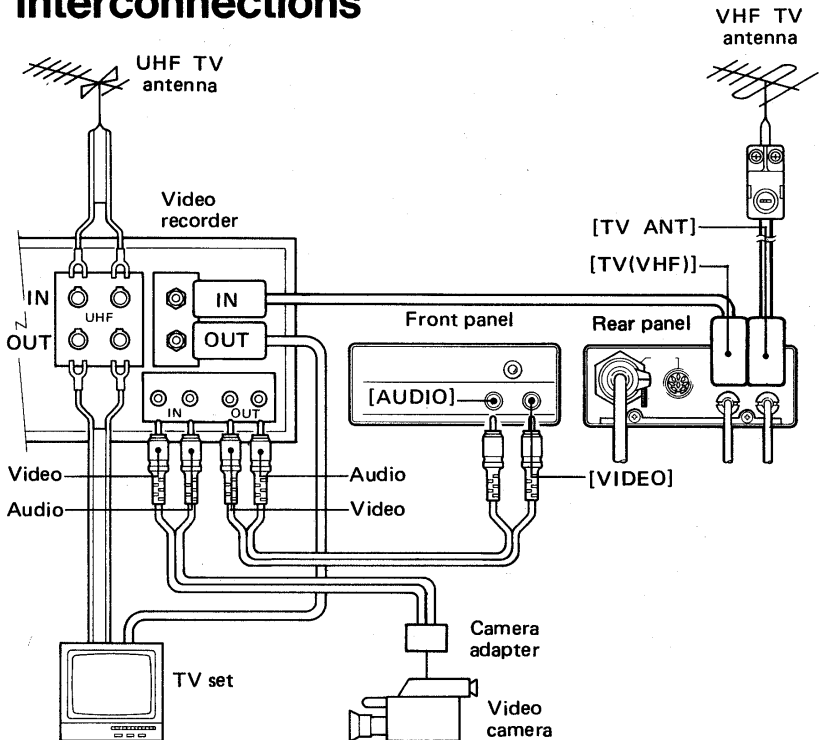
INTERCONNECTIONS

4-1 TV-1275 and IC-1275A/E connections



4-2 TV-1275 and video instrument interconnections

If you use a monitor TV that does not have a VHF TV antenna connector, use an external TV tuner.

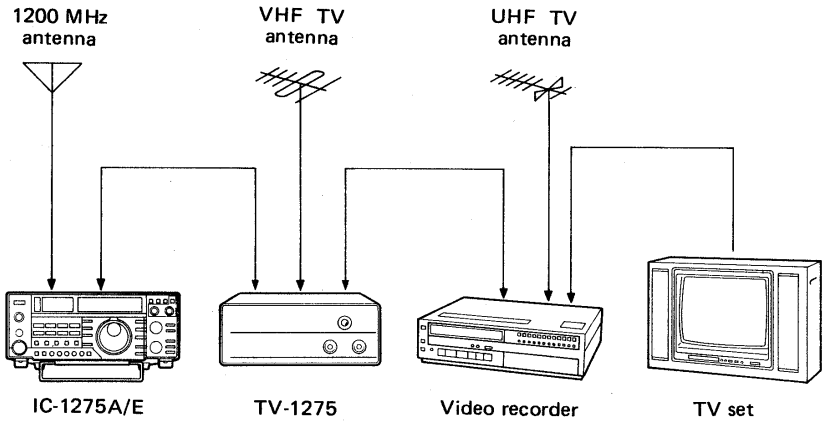


4 INTERCONNECTIONS

4-3 Combination connections

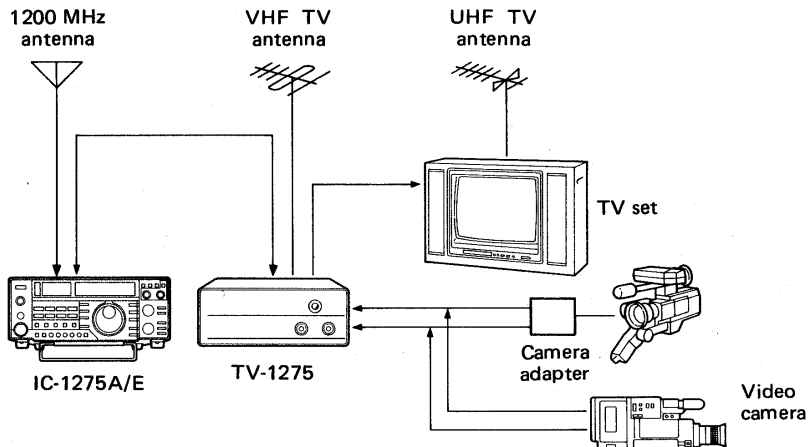
(1) Transmitting and receiving using a video recorder

Connect your TV set and video recorder as shown below. The received signal can be recorded. Both recorded pictures and sound can be transmitted. The transmitted audio and video can also be monitored on the TV set.



(2) "Live action" signal transmission

Connect video and audio output from the video camera to the TV-1275 as shown below.

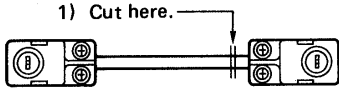


(3) VHF TV antenna connection

Use the supplied antenna cable to make a connection between [TV(VHF)] and the antenna connector of the TV set, TV tuner or video recorder.

• Type-F connector

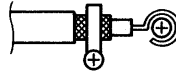
When the TV set does not have a Type-F VHF antenna connector, proceed as follows:



2) Strip the cable as shown in the figure.

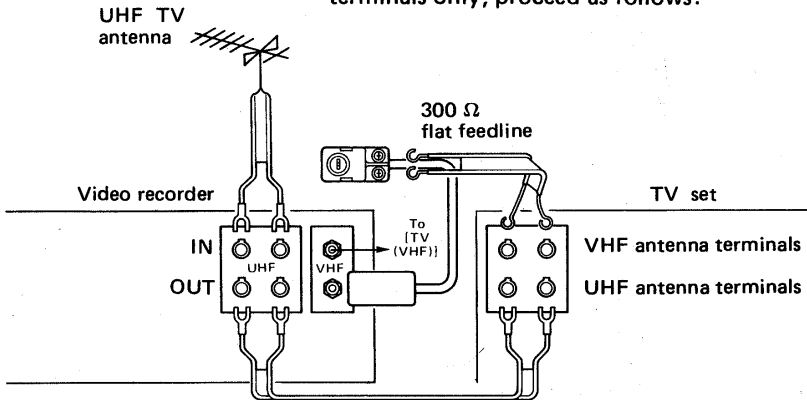


3) Connect the center conductor and shield to the VHF antenna connector.



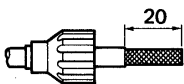
• 300 Ω antenna terminals

When the TV set has 300 Ω VHF antenna terminals only, proceed as follows:

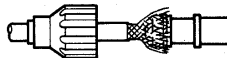


• PAL connector

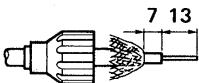
When the TV set has a PAL system antenna connector, proceed as follows:



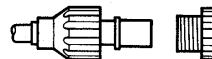
1) Slide the coupling ring over the coaxial cable. Strip only the cable jacket.



3) Put the braid over the connector body.



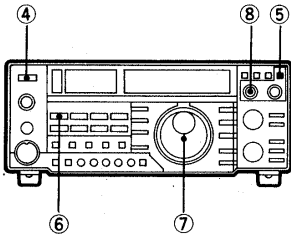
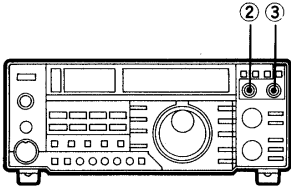
2) Strip the cable as shown in the figure.



4) Screw the nut onto the coupling ring.

All controls can be performed from the IC-1275A/E. Refer to the IC-1275A/E instruction manual, p. 15.

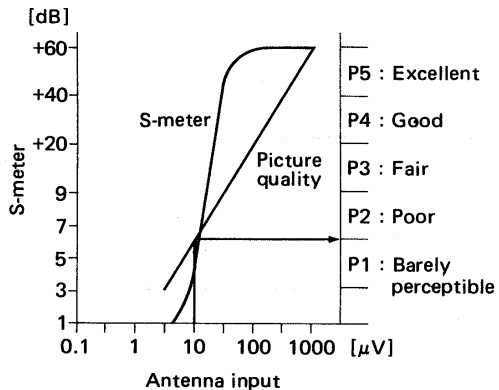
5-1 ATV receiving



- ① Turn ON the TV set and other instruments.
 - Set the TV set channel to TV-1275's output channel. (p. 3)
- ② Turn [RX GAIN] maximum clockwise.
- ③ Turn [RF POWER] to the center position (12 o'clock).
- ④ Push [POWER] IN.
- ⑤ Push [ATV] IN.
 - [POWER] on the TV-1275 lights up in green.
- ⑥ Push [FM] .
- ⑦ Set the operating frequency of the IC-1275A/E.
- ⑧ When the received picture waves slowly, adjust [RX GAIN] to stabilize the picture.

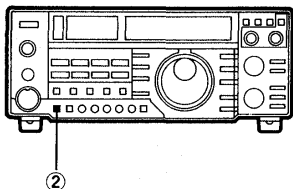
■ Signal strength and picture quality

Refer to the graph below for the relationship between signal strength, picture quality and S-meter indication. Picture quality is described by the letter "P" followed by a single digit.



5 OPERATION

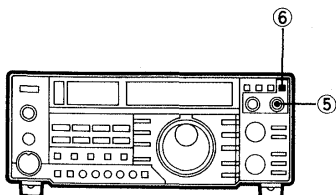
5-2 ATV transmitting



CAUTION: Since the bandwidth of an ATV signal is 9 MHz, be certain your transmitted signal is within the allowable limits of your license.

- ① Set the video camera and video recorder for proper operation.
- ② Push [XMIT] IN to transmit.
 - [POWER] on the TV-1275 lights up in red.
 - When transmitting, your transmitted signals can be monitored with your TV set.
- ③ The video camera microphone picks up voices or sounds.
 - [MIC GAIN] on the IC-1275A/E does not function.
- ④ To transmit your voice with the IC-1275A/E microphone, push the PTT switch.
 - [MIC GAIN] functions.

NOTE: If you here a whistling or howling sound, decrease the TV set volume control setting or use an earphone.



- ⑤ Adjust [RF POWER] to change RF output power if needed.
- ⑥ When operating in non-ATV modes (USB, LSB, CW or FM), always keep [ATV] in the OUT position.

■ GENERAL

- Mode : A5 or A9
- Power supply requirement : 13.8 V DC \pm 15% (negative ground)
- Current drain (at 13.8 V DC) : Transmit 210 mA Receive 155 mA
- Dimensions : 205(W) x 110(H) x 42(D) mm
8.1(W) x 4.3(H) x 1.7(D) in
(projections not included)
- Weight : 855 g (1.8 lb)

■ TRANSMIT CIRCUIT

- Output power (with IC-1275A/E) : 1 ~ 10 W (p-p) (continuously adjustable)
- Modulation system : Low level modulation
- Video signal input level : More than 500 mV (p-p)
- Audio signal input level : 2 mV ~ 1 V (RMS)
- Max. video frequency : 4.5 MHz
- Audio carrier stability : \pm 5 kHz
- Occupied bandwidth : 9 MHz (when mode is A9)
- Max. audio frequency deviation : \pm 50 kHz

■ RECEIVE CIRCUIT

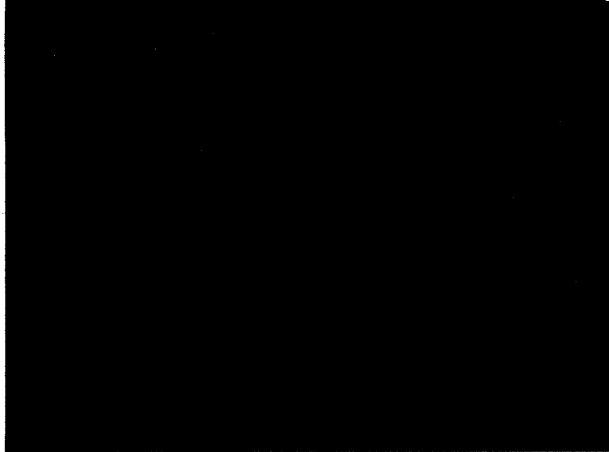
- Receiver output frequency :

Version	Channel	Video carrier frequency	Audio carrier frequency
U.S.A. (NTSC)	Low (ch. 2)	61.25 MHz	65.75 MHz
	High (ch. 3)	67.25 MHz	71.75 MHz
Europe (PAL)	Low (ch. 3)	55.25 MHz	60.75 MHz
	High (ch. 4)	62.25 MHz	67.75 MHz
Australia (PAL)	Low (ch. 1)	57.25 MHz	62.75 MHz
	High (ch. 2)	64.25 MHz	69.75 MHz

- Conversion gain : -10 ~ +10 dB
- Transmit/receive monitor frequency stability : \pm 300 kHz

All stated specifications are subject to change without notice or obligation.

Count on us!



A-8054S-1EX
Printed in Japan
Copyright © 1989 by Icom Inc.

Icom Inc.
6-9-16, Kamihigashi, Hirano-ku, Osaka 547, Japan