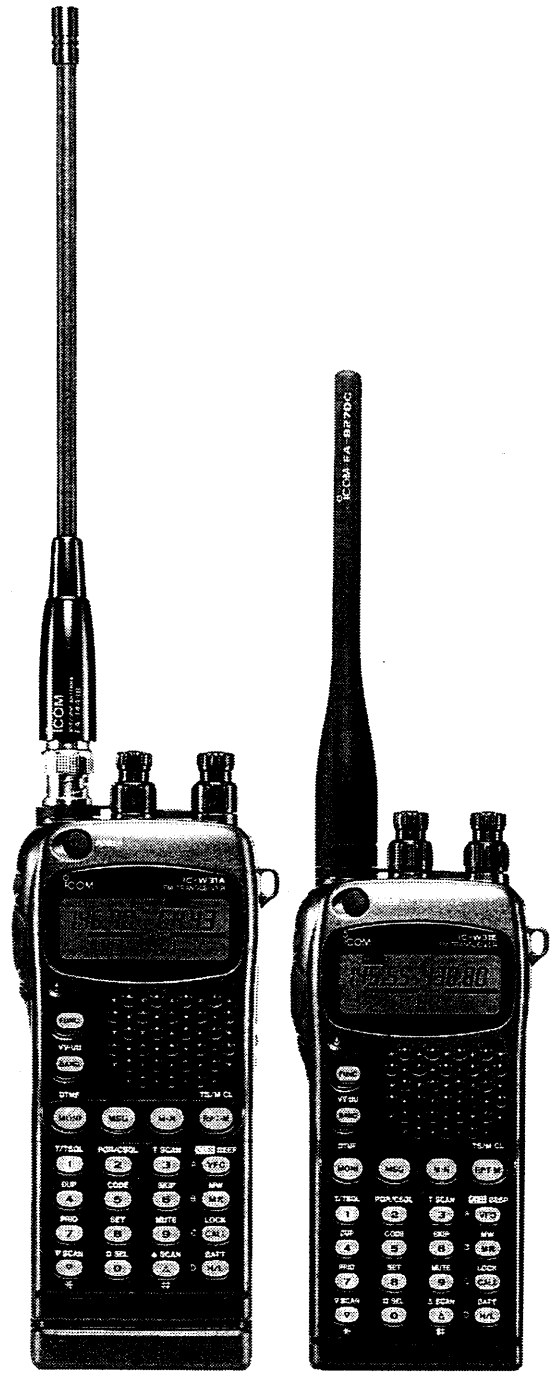
ICOM

INSTRUCTION MANUAL

DUAL BAND FM TRANSCEIVER

IC-W31A
IC-W31E



This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Icom Inc.

IMPORTANT

READ ALL INSTRUCTIONS carefully and completely before using the transceiver.

SAVE THIS INSTRUCTION MANUAL—This instruction manual contains important operating instructions for the IC-W31A and IC-W31E.

EXPLICIT DEFINITIONS

CAUTION:	Equipment damage may occur.
NOTE:	If disregarded, inconvenience only. No risk or personal injury, fire or electric shock.

This manual describes the UT-94 TONE SQUELCH UNIT as an option. However, it is standard in the U.S.A. version.

CAUTIONS

⚠**NEVER** connect the transceiver to an AC outlet or to a power source of more than 16 V DC. Such a connection may pose a fire hazard.

NEVER connect the transceiver to a power source using reverse polarity without a fuse (or with a more than 5 A fuse). This connection will ruin the transceiver.

NEVER attempt to charge alkaline or dry cell batteries. Beware that external DC power connections will charge batteries inside the battery case. This will damage not only the battery case but also the transceiver.

AVOID using or placing the transceiver in direct sunlight or in areas with temperatures below –10°C (+14°F) or above +60°C (+140°F).

BE CAREFUL! When transmitting for a long time at high output power, the rear panel will become hot.

The use of non-Icom battery packs/chargers may impair transceiver performance and invalidate the warranty.

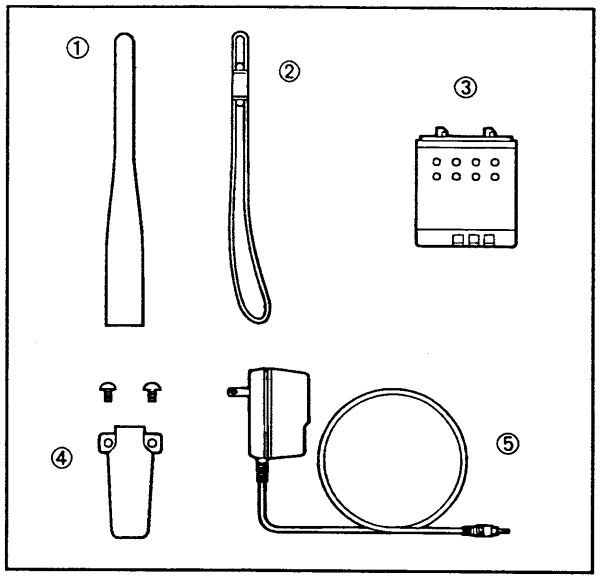
Even when the transciever power is OFF, a slight current still flows in the circuits. Remove the battery pack or case from the transceiver when not using it for a long time. Otherwise, the battery pack or installed dry cell batteries will become exhausted.

UNPACKING

Accessories included with the transceiver:

	Qty.
① Antenna	1
② Handstrap	1
③ Battery pack (BP-171 or BP-180) or battery case (BP-170) attached to the transceiver	1
④ Belt clip and screws	1 set
⑤ Wall charger*	1

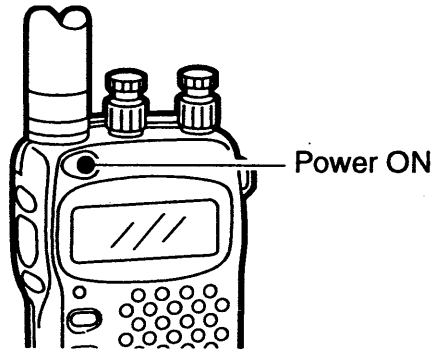
*Not supplied with battery case versions.



GETTING STARTED

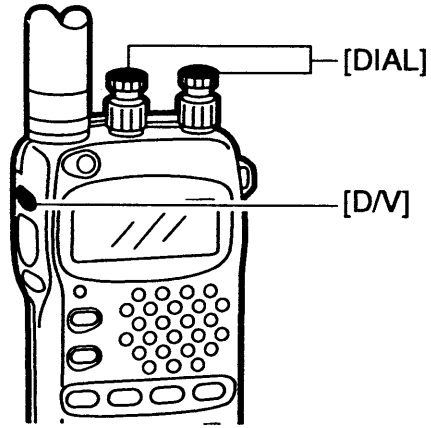
① Charge the battery pack or install alkaline batteries into the battery case (pgs. 10, 11).

② Turn power ON.
- Push and hold [POWER] for 2 sec.



③ Set the audio level by rotating [DIAL].

④ Set the frequency — while holding [D/V], rotate [DIAL].
- The priority of the [DIAL] function can be selected as "volume" or "tuning dial" in set mode (p. 42).



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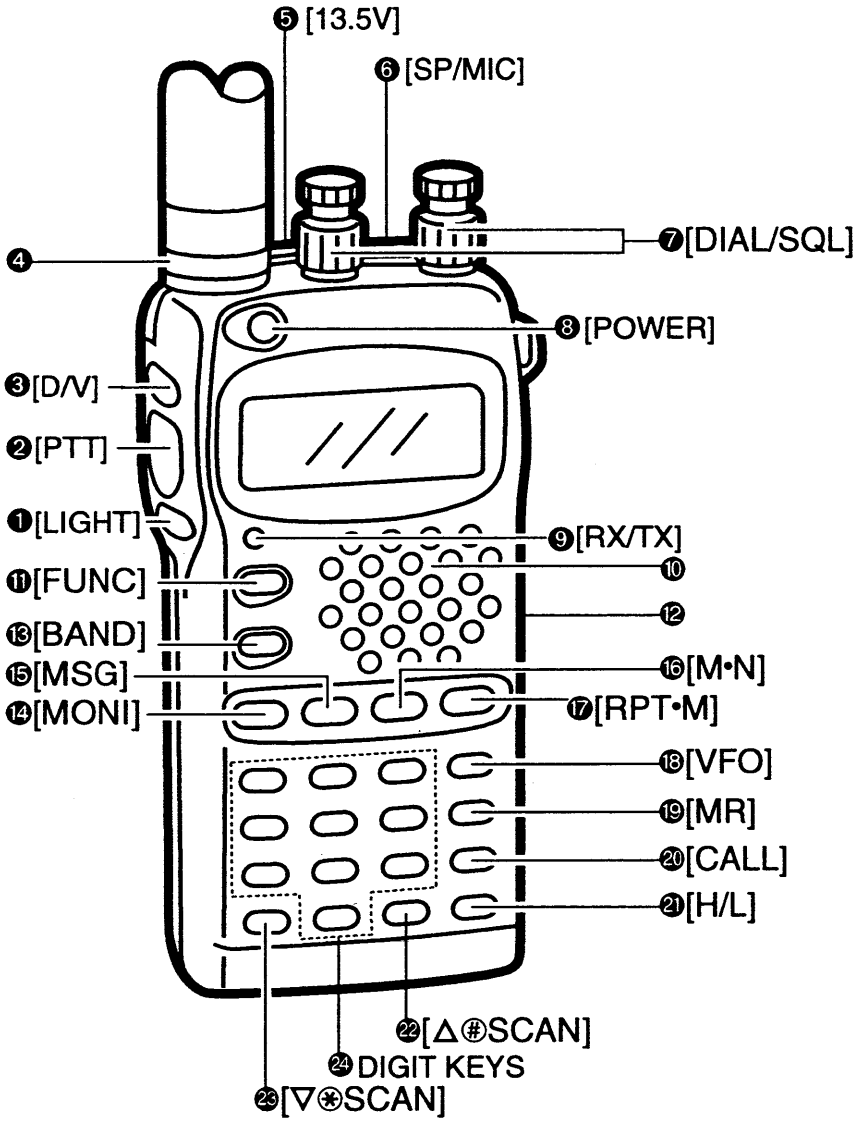
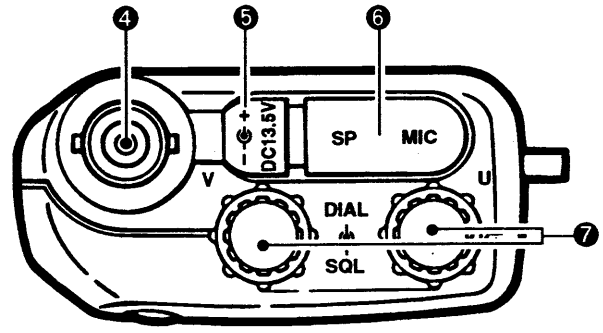
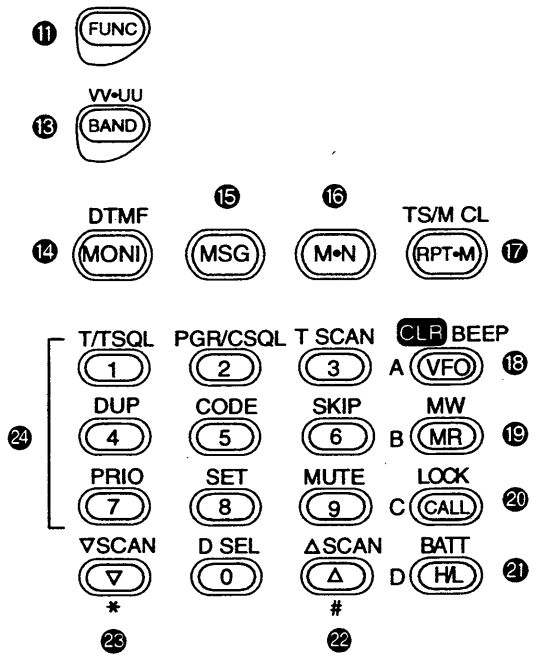
1 PANEL DESCRIPTION

■ Switches, controls, keys and connectors







❶ LIGHT SWITCH [LIGHT]

➥ Push to activate display and keypad backlighting for 5 sec.

➥ Push [FUNC] then [LIGHT] to manually turn the backlighting ON/OFF.

❷ PTT SWITCH [PTT] (p. 17)

➥ Push and hold to transmit; release to receive.

❸ DIAL/VOLUME SWITCH [D/V] (p. 17)

➥ Sets the [DIAL] function as a tuning control while pushing this switch.

• The priority of the [DIAL] function can be selected in set mode (p. 42).

❹ ANTENNA CONNECTOR (p. 12)

Connects the supplied antenna.

❺ EXTERNAL DC POWER JACK [DC13.5V]

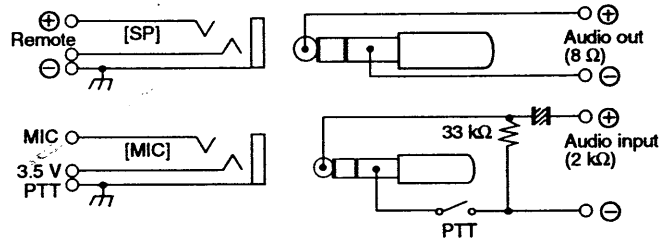
Allows operation with a 13.5 V DC power source using the optional cables, CP-12 or OPC-254.

CAUTION: Operation with an external DC power source simultaneously charges batteries inside the battery case or the battery pack. When using dry cell batteries this may cause battery leakage and damage the transceiver; when using a Ni-Cd battery pack this may cause battery overcharging and shorten the life of the battery pack.

❻ EXTERNAL SPEAKER AND MICROPHONE JACKS [SP/MIC]

Connect an optional speaker-microphone or headset, if desired. The internal microphone will not function when either is connected. (See p. 50 for a list of available options.)

◇ External connection



The above connection does not apply when a condensor microphone is connected.

❼ TUNING/VOLUME DIALS [DIAL] AND SQUELCH CONTROLS [SQL]

➥ Rotate [DIAL] to adjust the audio level (default setting).

➥ Rotate [DIAL] while pushing [D/V] to select an operating frequency or memory channel.

➥ Rotate [SQL] clockwise to close and counterclockwise to open the squelch.

1 PANEL DESCRIPTION

❽ POWER SWITCH [POWER] (p. ii)
Push and hold for 2 sec. to toggle the transceiver power ON and OFF.

❾ RX/TX INDICATOR [RX/TX] (p. 17)
Lights green while receiving a signal or when the squelch is open; lights red while transmitting.

❿ SPEAKER/MICROPHONE

⓫ FUNCTION KEY [FUNC]

(FUNC) Push to call up the function indicator, "F", then push another key to access its secondary function.
- "F" appears for 5 sec. after [FUNC] is pushed; at this time pushing [FUNC] again cancels the indication.
- This key cannot be activated during transmit.

NOTE: In general, "F" disappears when another key is pushed to activate a secondary function. However, some keys which have more than one secondary function, (such as [④DUP]), do not cancel "F." In this case, "F" disappears automatically after 5 sec.

⓬ BATTERY PACK RELEASE (p. 11)
Push to open the latch for battery pack removal.

⓭ BAND KEY [BAND(VV•UU)]

VV•UU (BAND)
- ➥ Push to toggle the main band (p. 13).
- ➥ Push [FUNC] then push this key momentarily to activate the U by U and V by V functions (p. 19).
- ➥ Push [FUNC] then push and hold this key to toggle the single band function ON and OFF (p. 19).

⓮ MONITOR KEY [MONI(DTMF)]

DTMF (MONI)
- ➥ Push this key to open the main band's squelch without changing the [SQL] setting. (p. 17).
- ➥ During transmit, push this key to transmit a selected DTMF code (p. 27).
- ➥ Push [FUNC] then this key to enter DTMF memory mode (p. 27).

⓯ MESSAGE KEY [MSG]

(MSG)
- ➥ Push this key once to indicate receive message memories; twice to indicate transmit message memories.
  - Rotate [DIAL] to select the desired message memory.
- ➥ Push [FUNC] then this key to enter message receive mode (p. 38).
  - "MSG" appears.
  - Pager or code squelch must be activated to receive a message.
- ➥ During transmit, push this key then a message memory number to transmit the corresponding message (p. 38).

⓰ MEMORY NAME KEY [M•N]

(M•N)
- ➥ In memory mode, push to toggle between frequency and channel indication.(p. 25)
- ➥ Push [FUNC] then push this key to enter mem-

ory name writing mode from memory mode (p. 25).

⑰ REPEATER MEMORY KEY [RPT• M(TS/M CL)]

TS/M CL (RPT•M)

➥ Push this key to call up a repeater memory (p. 22).
- Push [VFO] or [MR] to return to previous indication.

➥ In VFO mode, push [FUNC] then this key to select a tuning step (p. 16).

➥ In memory mode, push [FUNC] then push and hold this key to clear the indicated memory (p. 25).

➥ While pushing [PTT], push this key for 1 to 2 sec. to transmit a 1750 Hz tone burst for repeater access (Eur., U.K., and Italy versions only; p. 20).

⑱ VFO MODE KEY [VFO(CLR)(BEEP)]

CLR BEEP A (VFO)

➥ Push this key to cancel most functions, then push again to select VFO mode.
- When making a mistake during input, push this key to cancel and start from the beginning.

➥ Push [FUNC] then this key to toggle beep tones ON and OFF (p. 19).

➥ While pushing [PTT], this key sends a DTMF "A."

⑲ MEMORY MODE KEY [MR(MW)]

MW B (MR)

➥ Push this key to select memory mode (p. 13).

➥ Push [FUNC] then this key to write (frequency, etc.) to another mode such as VFO to memory, VFO to scan edge memory, memory to memory, etc. (p. 23).
- Writing operation is: [FUNC], [MR(MW)], [DIAL] then push and hold [MR(MW)].

➥ While pushing [PTT], this key sends a DTMF "B."

⑳ CALL MODE KEY [CALL(LOCK)]

LOCK C (CALL)

➥ Push this key to select the call channel (p. 13).

➥ Push [FUNC] then this key to toggle the lock function ON and OFF (p. 13).
- "L" appears while the lock function is activated.
- [POWER], [VOL], [MONI], [LIGHT], [SQL], and [FUNC] can still be accessed while the lock function is on.

㉑ OUTPUT POWER KEY [H/L(BATT)]

BATT D (H/L)

➥ Push this key to select one of 3 output power levels: high, low or economical low (p. 17).

➥ Push [FUNC] then this key to indicate the remaining battery voltage for the connected battery pack (p. 41).

➥ While pushing [PTT], this key sends a DTMF "D."

㉒ UP KEY [△(△ SCAN)]

△SCAN (△) #

➥ In VFO mode, push this key to increment the frequency according to the selected tuning steps, in memory mode, push this key to increment the memory channel (p. 15).

➥ Push this key for 0.5 sec. to start full or memory scan in the "up" direction (p. 30).

➥ Push [FUNC] then this key to start programmed

or memory skip scan in the "up" direction (p. 30).
➥ While pushing [PTT], this key sends a DTMF "F."

㉓ DOWN KEY [▽(▽ SCAN)]

▽SCAN (▽) *

➥ In VFO mode, push this key to decrement the frequency according to the selected tuning steps, in memory mode, push this key to decrement the memory channel (p. 15).
➥ Push this key for 0.5 sec. to start full or memory scan in the "down" direction (p. 30).
➥ Push [FUNC] then this key to start programmed or memory skip scan in the "down" direction (p. 30).
➥ While pushing [PTT], this key sends a DTMF "E."

㉔ DIGIT KEYS

➥ Input the specified digit during frequency input, memory channel selection, etc.
➥ Transmit the DTMF code of the specified digit while pushing [PTT].
➥ In addition, each key has one or more secondary functions after pushing [FUNC] as follows:

D SEL (0) ➥ Push [FUNC] then this key to toggle the dial select step between the 1 MHz and 100 kHz digits.
• While "F" appears rotate [DIAL] to change the frequency according to the dial select step set above (even when "tuning dial" has priority over "volume").

T/TSQL (1) ➥ Push [FUNC] then this key to activate the subaudible tone encoder.
➥ When installing an optional UT-94 TONE SQUELCH UNIT, push [FUNC] then this key to activate the subaudible tone encoder, pocket beep, tone squelch, or normal operation, in that order (pgs. 39, 40).
• "T" appears during tone operation; "T SQL ((•)) " appears during pocket beep operation and "T SQL" appears during tone squelch operation.

PGR/CSQL (2) ➥ Push [FUNC] then this key to activate the pager or code squelch function or to turn them OFF (pgs. 35, 36).
• "P" appears in place of the 100 MHz digit during pager operation; "C" appears in place of the 100 MHz digit during code squelch operation.

T SCAN (3) ➥ During optional tone squelch operation, push [FUNC] then this key to start the tone scan (p. 40).

DUP (4) ➥ Push [FUNC] then this key to select semi-duplex or simplex operation (p. 20).
• "– DUP" appears during minus duplex operation, "DUP" appears during plus duplex operation and no indicator appears during simplex operation.

CODE (5) ➥ Push [FUNC] then this key to enter code setting mode for pager or code squelch use. (p. 33).

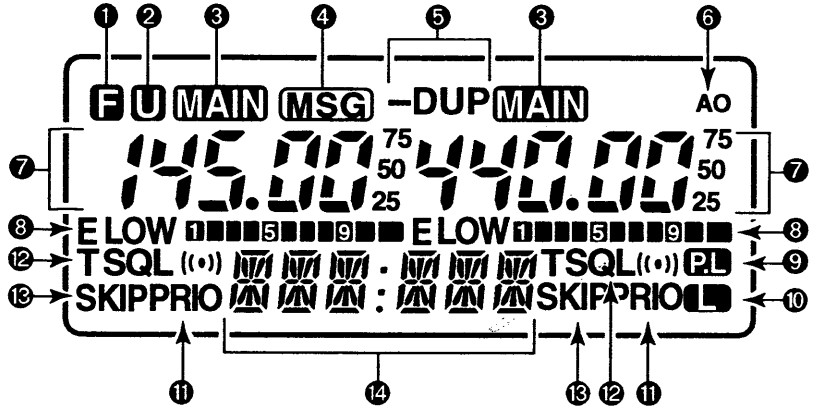
SKIP (6) ➥ In memory mode, push [FUNC] then this key to toggle the channel's skip setting ON/OFF (p. 31).
- During pager or code squelch operation, the skip setting is used to set a code for "receive inhibit" (p. 33).

PRIO (7) ➥ Push [FUNC] then this key to start priority watch (p. 32).
- While in VFO mode priority watch becomes memory channel watch; when the call channel is indicated, priority watch becomes call channel watch.

SET (8) ➥ Push [FUNC] then this key to enter set mode.
- [△]/[▽] select set mode items and [DIAL] selects a set mode condition while in set mode.

MUTE (9) ➥ Push [FUNC] then this key to activate the audio mute function (p. 17).
- Push any key or switch to cancel the function.

■ Function display



❶ FUNCTION INDICATOR
Shows that the secondary functions of switches can be accessed.
- This indicator appears for 5 sec. after [FUNC] is pushed.
- While this indicator appears, pushing [FUNC] cancels it.

❷ U BY U INDICATOR (p. 19)
Appears when the U by U or V by V function (two frequencies in one band) is in use.
- U by U is for the UHF band; V by V is for the VHF band.

❸ MAIN BAND INDICATORS (p. 13)
Appears above the frequency which is selected as the main band.
- Only one of these indicators appears at one time.

❹ MESSAGE INDICATOR (p. 38)
Appears when the message function is activated.

❺ DUPLEX INDICATOR (p. 20)
Appear when semi-duplex operation (repeater operation) is in use.
- "– DUP" appears when minus duplex is selected; "DUP" only, appears when plus duplex is selected.
- The indicator shows the main band condition only.

❻ AUTO POWER-OFF INDICATOR (p. 42)
Appears when the auto power-off function is in use.

❼ FREQUENCY READOUTS
Show the operating frequency, set mode contents, etc.
- The frequency on the left is for the VHF band; the frequency on

Count on us!

A-5339S-1EX-②
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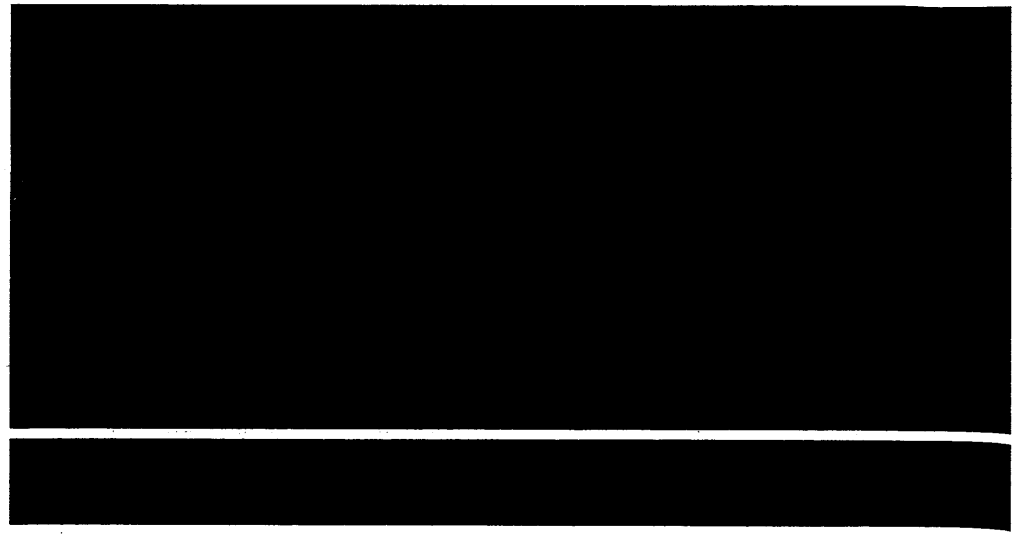

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