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You can read the recommendations in the user guide, the technical guide or the installation guide for ICOM IC-7600. You'll find the answers to all your questions on the ICOM IC-7600 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual ICOM IC-7600
User guide ICOM IC-7600
Operating instructions ICOM IC-7600
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Instruction manual ICOM IC-7600



HF/50 MHz TRANSCEIVER
IC-7600



Icom Inc.



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Manual abstract:

q Hand microphone

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... 1 w power cable .

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. 1 DC e Spare fuse (ATC 5 A)

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..... 1 r Spare fuse (ATC 30 A) .

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2 t 6.35 (d) mm plug

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... @@@@These lmts are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: · Reorient or relocate the receiving antenna. · Increase the separation between the equipment and receiver. @@@@Personal injury, fire hazard or electric RWARNING shock may occur. CAUTION NOTE Equipment damage may occur.

If disregarded, inconvenience only. No risk of personal injury, fire or electric shock. WORD Spurious signals may be received near the following frequencies. @@@10.4923MHz, 24.

576MHz Icom, Icom Inc. @@@Microsoft, Windows and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other products or brands are registered trademarks or trademarks of their respective holders. PRECAUTIONS R WARNING HIGH RF VOLTAGE! NEVER DO NOT use chemical agents such as benzene attach an antenna or internal antenna connector during transmission. This may result in an electrical shock or burn.

or alcohol when cleaning the IC-7600, as they can damage the transceiver's surfaces. with a headset or other audio accessories at high volume levels. Hearing experts advise against continuous high volume operation. If you experience a ringing in your ears, reduce the volume or discontinue use. R WARNING! NEVER operate the transceiver DO NOT push the PTT switch when you don't actually desire to transmit. DO NOT use or place the transceiver in areas with temperatures below ±0°C (+32°F) or above +50°C (+122°F). R WARNING! Immediately turn the transceiver power OFF and remove the power cable if it emits an abnormal odor, sound or smoke. Contact your Icom dealer or distributor for advice. DO NOT place the transceiver in excessively dusty environments or in direct sunlight. DO NOT place the transceiver against walls or putting anything on top of the transceiver.

This may overheat the transceiver. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 CAUTION! NEVER put the transceiver in any unstable place (such as on a slanted surface or vibrated place). This may cause injury and/or damage to the transceiver. Always place unit in a secure place to avoid inadvertent use by children. BE CAREFUL! If you use a linear amplifier, set the transceiver's RF output power to less than the linear amplifier's maximum input level, otherwise, the linear amplifier will be damaged. BE CAREFUL! The rear panel will become hot when operating the transceiver continuously for long periods of time. Use Icom microphones only (supplied or optional). Other manufacturers' microphones have different pin assignments, and connection to the IC-7600 may damage the transceiver or microphone. The LCD display may have cosmetic imperfections that appear as small dark or light spots. This is not a malfunction or defect, but a normal characteristic of LCD displays.

During maritime mobile operation, keep the transceiver and microphone as far away as possible from the magnetic navigation compass to prevent erroneous indications. Turn the transceiver power OFF and/or disconnect the DC power cable when you will not use the transceiver for long period of time. For U.S.A. only CAUTION: Changes or modifications to this device, not expressly approved by Icom Inc., could void your authority to operate this device under FCC regulations. CAUTION! NEVER change the internal settings of the transceiver. This may reduce transceiver performance and/or damage to the transceiver. In

particular, incorrect settings for transmitter circuits, such as output power, dling current, etc.
, might damage the expensive final devices. The transceiver warranty does not cover any problems caused by unauthorized internal adjustment. CAUTION!
NEVER apply AC power to the [DC13.8V] socket on the transceiver rear panel. This could cause a fire or damage the transceiver. such as a 24 V battery, to the
[DC13.8V] socket on the transceiver rear panel. This could cause a fire or damage the transceiver. CAUTION! NEVER apply more than 16 V DC, protrude into
the transceiver or into connectors on the rear panel. This may result in an electric shock.

the top, rear or bottom of the transceiver. rain, snow or any liquids. CAUTION! NEVER let metal, wire or other objects CAUTION! NEVER block any cooling
vents on CAUTION! NEVER expose the transceiver to CAUTION! NEVER install the transceiver in a place without adequate ventilation. Heat dissipation may be
reduced, and the transceiver may be damaged. CAUTION! NEVER operate or touch the transceiver with wet hands. This may result in an electric shock or
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Shallow S-meter squelch threshold S-meter squelch Deep While rotating the RF gain control, noise may be heard. This comes from the DSP unit and does not indicate an equipment malfunction. 1 PANEL DESCRIPTION Front panel (continued) !3 TIMER HF/50MHz TRANSCEIVER TX RX SPLIT LOCK SPLIT DUAL WATCH 1.

8 10 1 4 7 3.5 14 24 50 2 5 8 0 7 18 28 3 6 9 TWIN-PBT POWER TRANSMIT TUNER MONITOR 21 GENE PHONES BAL NR CHANGE MAIN /SUB F-INP ENT MP-W MW MP-R VFO/MEMO PBT-CLR NOTCH APF/TPF M.SCOPE NOTCH CW PITCH ELEC-KEY XFC NB AF TS NR RF/SQL RIT MIC F-1 F-2 F-3 F-4 F-5 F-6 AUTO TUNE TX RIT/ TX CLEAR SSB MIC GAIN RF POWER BK-IN DELAY KEY SPEED CW RTTY/PSK AM/FM FILTER EXIT/SET REC PLAY SPEECH LOCK VOICE MEMORY !1 !2 !3 MULTI-FUNCTION SWITCHES Push to select the functions indicated on the LCD display to the right of these switches. · Functions vary depending on the operating condition. !1 BREAK-IN DELAY CONTROL [BK-IN DELAY] (p. 85) Adjusts the transmit-to-receive switching delay time for CW sem-break-n operations. Short delay for high speed keying (2 dots) Long delay for slow speed keying (13 dots) Push !2 ELECTRONIC CW KEYSPEED CONTROL [KEY SPEED] (p. 85) Adjusts keying speed for the internal electronic CW keyer from 6 wpm (mn.) to 48 wpm (max.).

Fast (48 wpm) MF1 (MULTI-FUNCTION 1 SWITCH) ANT SWITCH (ANT) Selects the antenna connector between ANT1 and ANT2 when pushed. (p. 112) Turns the [RX ANT] (receive antenna) ON and OFF when pushed and held for 1 sec. · When the receive antenna is activated, the antenna connected to the [ANT1] or [ANT2] is used for transmitting only. Push Slow (6 wpm) When a transverter is in use, this [ANT] does not function and 'TRV' appears. MF2 (MULTI-FUNCTION 2 SWITCH) METER SWITCH (METER) (p. 34) Selects RF power (Po), SWR, ALC, COMP, Vd or Id metering during transmit. Switches the multi-function digital meter ON and OFF when pushed and held for 1 sec. 3 PANEL DESCRIPTION 1 MF3 (MULTI-FUNCTION 3 SWITCH) P.AMP SWITCH (P.AMP) (p. 72) Selects one of 2 receive RF preamps or bypasses them. · "P. AMP1" activates 10 dB preamp. · "P. AMP2" activates 16 dB high-gain preamp. · "P. AMP OFF" can also be selected. MF6 (MULTI-FUNCTION 6 SWITCH) VOX SWITCH (VOX) (p. 84) Push to turn the VOX function ON and OFF during SSB, AM and FM mode operation. Push and hold for 1 sec. to enter VOX set mode. What is the VOX function? The VOX function (voice operated transmission) activates transmission without pushing the transmit switch or PTT switch when you speak into the microphone; then automatically returns to receive when you stop speaking. BK-IN SWITCH (BK-IN) (p. 85) Selects sem break-n, full break-n operation, or turns the break-n operation OFF when pushed in CW mode. What is the break-in function? The break-in function switches transmit and receive with CW keying. Full break-n function (QSK) can monitor the receive signal during keying. MF7 (MULTI-FUNCTION 7 SWITCH) COMP SWITCH (COMP) (p. 86) Turns the speech compressor ON and OFF in SSB mode. Switches the narrow, middle or wide compression when pushed and held for 1 sec.

What is the speech compressor? The speech compressor compresses the transmitter audio input to increase the average audio output level, to increase talk power. This function is effective for long-distance communication or when propagation conditions are poor. 1/4 Turns the preamp function OFF when pushed and held for 1 sec. What is the preamp? The preamp amplifies signals in the front end to improve S/N ratio and sensitivity. Select "P. AMP1" or "P. AMP2" when receiving weak signals. MF4 (MULTI-FUNCTION 4 SWITCH) ATT SWITCH (ATT) (p. 72) Selects 6 dB, 12 dB or 18 dB attenuator when pushed. · "ATT OFF" can also be selected.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 4 Turns the attenuator function OFF when pushed and held for 1 sec. What is the attenuator? The attenuator prevents a desired signal from being distorted when very strong signals are near the desired frequency, or when very strong electromagnetic fields, such as from a broadcasting station, are near your location. MF5 (MULTI-FUNCTION 5 SWITCH) AGC SWITCH (AGC) (p. 74) Activates and selects fast, middle or slow AGC time constant when pushed. · In FM mode, only "FAST" is available.

Enters the AGC set mode when pushed and held for 1 sec. AGC time constant can be set between 0.1 to 8.0 sec. (depends on mode), or turned OFF. When AGC is "OFF," the S-meter does not function. SWITCH (1/4) (p. 30) Turns the 1/4 speed tuning function ON and OFF in SSB data, CW, RTTY and PSK modes. · 1/4 function sets dial rotation to 1/4 of normal speed for fine tuning. What is the AGC? The AGC controls receiver gain to produce a constant audio output level, even when the received signal strength varies dramatically. Select "FAST" for tuning and then select "MID" or "SLOW" depending on the receiving condition. TONE SWITCH (TONE) (pgs. 62, 63) Switches between the tone encoder, tone squelch function and no-tone operation when pushed in FM mode. Enters the tone set mode when pushed and held for 1 sec. in FM mode.

1 PANEL DESCRIPTION Front panel (continued) !7 !6 !5 TIMER HF/50MHz TRANSCEIVER !4 TX RX SPLIT LOCK SPLIT DUAL WATCH 1.8 10 1 4 7 3.5 14 24 50 2 5 8 0 7 18 28 3 6 9 TWIN-PBT POWER TRANSMIT TUNER MONITOR 21 GENE PHONES BAL NR CHANGE MAIN /SUB F-INP ENT MP-W MW MP-R VFO/MEMO PBT-CLR NOTCH APF/TPF !8 !9 M.SCOPE NOTCH CW PITCH ELEC-KEY XFC NB AF TS NR RF/SQL RIT MIC F-1 F-2 F-3 F-4 F-5 F-6 AUTO TUNE TX RIT/ TX CLEAR SSB MIC GAIN RF POWER BK-IN DELAY KEY SPEED CW RTTY/PSK AM/FM FILTER EXIT/SET REC PLAY SPEECH LOCK VOICE MEMORY @0 @1 @2 @3 @4 @5 @6 @7 @8 @9 !4 NOISE REDUCTION SWITCH [NR] (p. 82) Push to switch DSP noise reduction ON and OFF. · The indicator on this switch lights green when the function is activated. !8 BALANCE CONTROL [BAL] (inner control; p. 79) Adjusts the audio output balance between main and sub readout frequencies while in dualwatch. Increases sub readout gain !5 NOISE REDUCTION LEVEL CONTROL [NR] (outer control; p. 82) Adjusts the DSP noise reduction level when the noise reduction function is in use.

Set for maximum readability. · To use this control, push [NR] (!4) in advance. Increases main readout gain Decreases !6 MONITOR SWITCH [MONITOR] (p. 87) Monitors your transmitted IF signal. · The CW sidetone functions regardless of the [MONITOR] switch setting in CW mode. · The indicator on this switch lights green while the function is activated. !9 NOISE BLANKER SWITCH [NB] (p. 81) Switches the noise blanker ON and OFF when pushed. The noise blanker reduces pulse-type noise such as that generated by automobile ignition systems.



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This function cannot be used in FM mode, and is not effective for non-pulsed tone.

The indicator on this switch lights green while the function is activated. Enters the noise blanker level set mode when pushed and held for 1 sec. @0 LCD FUNCTION SWITCHES [F-1] to [F-6] Push to select the function indicated in the LCD display above these switches. Functions vary depending on the operating condition. #7 ANTENNA TUNER SWITCH [TUNER] (p. 113) Turns the internal antenna tuner ON and OFF (bypass) when pushed momentarily. The indicator on this switch lights green when the tuner is turned ON, goes off when tuner is turned OFF (bypassed). Tunes the antenna tuner manually when pushed and held for 1 sec. The indicator on this switch blinks red during manual tuning. When the tuner cannot tune the antenna, the tuning circuit is bypassed automatically after 20 sec.

5 PANEL DESCRIPTION 1 @1 MODE SWITCHES Selects the desired mode. (p. 32) Announces the selected mode via the speech synthesizer. (p. 35) [SSB] Selects USB and LSB modes alternately when pushed. Selects SSB data mode (USB-D, LSB-D) when pushed and held for 1 sec. in SSB mode. In SSB data mode, push to return to SSB mode. @5 VOICE MEMORY PLAYBACK SWITCH [PLAY] (p. 92) Push to playback the previously recorded audio for the preset time period.

Push and hold for 1 sec. to playback all of the previously recorded audio. @6 AUTOMATIC TUNING SWITCH [AUTO TUNE] (p. 83) Turns the automatic tuning function ON and OFF in CW and AM modes. IMPORTANT! When receiving a weak signal, or receiving a signal with interference, the automatic tuning function may tune the receiver to an undesired signal.

Switches D1, D2 and D3 when pushed and held for 1 sec. in SSB data mode. [CW] Selects CW and CW-R (CW reverse) modes alternately when pushed. [RTTY/PSK] Selects RTTY and PSK modes alternately when pushed. Switches RTTY and RTTY-R (RTTY reverse) mode when pushed and held for 1 sec. in RTTY mode. Switches PSK and PSK-R (PSK reverse) mode when pushed and held for 1 sec. in PSK mode. [AM/FM] Selects AM and FM modes alternately. Selects AM or FM data mode (AM-D/FM-D) when pushed and held for 1 sec. in AM or FM mode, respectively. In AM or FM data mode, push to return to AM or FM mode, respectively. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 6 @7 MAIN DIAL Changes the displayed frequency, selects set mode setting, etc. @8 SPEECH/LOCK SWITCH [SPEECH/LOCK] Push to announce the S-meter indicator, the displayed frequency and the operating mode. (p.

35) The parameters to be announced can be selected in the others set mode. (p. 131) Push and hold for 1 sec. to turn the dial lock function ON and OFF. (p. 82) The dial lock function electronically locks the main dial. The lock indicator lights while the dial lock function is activated. Switches D1, D2 and D3 when pushed and held for 1 sec. in AM or FM data mode. @2 FILTER SWITCH [FILTER] (p.

76) Push to select one of 3 IF filter settings. Push and hold for 1 sec. to display the filter set screen. @3 EXIT/SET SWITCH [EXIT/SET] Push to exit, or return to the previous screen indicated during spectrum scope, memory, scan or set mode screen display. Push and hold for 1 sec.

to display the set mode menu screen. @4 VOICE MEMORY RECORD SWITCH [REC] (p. 91) Push to record the previous received signal for the preset time period. The preset time period can be set in voice set mode. (p.

97) NOTE: The [SPEECH/LOCK] switch operator to activate the voice synthesizer or the dial lock functions can be replaced in others set mode. (p. 131) @9 RIT/TX CONTROL [RIT/TX] (pgs. 73, 87) Shifts the receive and/or transmit frequency without changing the transmit and/or receive frequency shown on the main VFO while the RIT and/or TX functions are/s ON. Rotate the control clockwise to increase the frequency, or rotate the control counterclockwise to decrease the frequency. The RIT or TX functions must be ON. The shift frequency range is ± 9.999 kHz in 1 Hz steps (or ± 9.99 kHz in 10 Hz steps). High shift Low shift Push and hold for 1 sec.

to record the received signal until the recording is cancelled. Push this switch momentarily to stop recording. The memory records the latest 30 sec. of audio. 1 PANEL DESCRIPTION Front panel (continued) #0 TIMER HF/50MHz TRANSCEIVER #1 #2 #3 TX RX SPLIT #4 #5 LOCK #6 #7 SPLIT DUAL WATCH #8 1.8 10 1 4 7 #9 7 18 28 3 6 9 3.5 14 24 50 2 5 8 0 TWIN-PBT POWER TRANSMIT TUNER MONITOR 21 GENE PHONES BAL NR CHANGE MAIN /SUB F-INP ENT MP-W MW MP-R VFO/MEMO PBT-CLR NOTCH APF/TPF M.SCOPE NOTCH CW PITCH \$0 \$1 \$2 ELEC-KEY XFC NB AF TS NR RF/SQL RIT MIC F-1 F-2 F-3 F-4 F-5 F-6 AUTO TUNE TX RIT/ TX CLEAR \$3 SSB MIC GAIN RF POWER BK-IN DELAY KEY SPEED CW RTTY/PSK AM/FM FILTER EXIT/SET REC PLAY SPEECH LOCK VOICE MEMORY \$5 #0 TRANSMIT INDICATOR [TX] Lights red while transmitting. #1 RECEIVE INDICATOR [RX] Lights green while receiving a signal and when the squelch is open. #2 LCD FUNCTION DISPLAY (p.

13) Shows the operating frequency, function switch menus, spectrum scope screen, memory list screen, set mode settings, etc. #3 SPLIT OPERATION INDICATOR [SPLIT] (p. 88) Lights during split frequency operation. #4 MAIN/SUB CHANGE SWITCH [CHANGE] Switches the frequency and selected memory channel between main and sub readouts when pushed. Switches between transmit frequency and receive frequency when the split frequency function is ON.

(p. 88) #4 #7 SPLIT SWITCH [SPLIT] (p. 88) Push to turn the split function ON and OFF. "use." appears when the split function is on Push and hold for 1 sec. to activate the quick split function. The split function ON and equalize the sub readout frequency to the main readout and sets the sub readout for frequency input in non-FM modes. (p. 89) The offset frequency is shifted from the selected VFO frequency in FM mode. (p. 129) The tone encoder function is turned ON in FM mode. The quick split function can be turned OFF in others set mode. (p. 129) #8 KEYPAD Pushing a key selects the operating band. (p.

27) [GEN -] selects the general coverage band. Pushing the same key 2 or 3 times calls up other stacked frequencies in the band. (p. 27) Icom's triple band stacking register memorizes 3 frequencies in each band. Equalizes the sub readout frequency to the main readout frequency when pushed and held for 1 sec. #5 LOCK INDICATOR [LOCK] (p. 82) Lights when the dial lock function is activated. #6 DUALWATCH SWITCH [DUALWATCH] (p. 79) Push to turn the dualwatch function ON and OFF. "s" n use.

"appears when the dualwatch function After pushing [F-INP ENT], push a key on the keypad to enter a numeric frequency. After entering, push [F-INP ENT] to select the desired frequency directly (p. 28) e.g. to enter 14.

195 MHz; Push [F-INP ENT] [1] [4] [.] [1] [9] [5] [F-INP ENT]. After pushing [F-INP ENT], push a key on the keypad to enter a memory channel.



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After entering, push [J/] to select the desired memory channel directly. (p. 99) Push and hold for 1 sec. to turn the dualwatch function ON and equalizes the sub readout frequency to the main readout. (Quick dualwatch function) · The quick dualwatch function can be turned OFF in others set mode. (p. 128) 7 PANEL DESCRIPTION 1 #9 PASSBAND TUNING CONTROLS [TWIN-PBT] (p. 75) Adjusts the receiver's IF filter passband width via the DSP. · Passband width and shift frequency are displayed in the multi-function display. · Push and hold [PBT-CLR] for 1 sec. to clear the PBT settings. · Adjustment range is set to half of the IF filter passband width. 25 Hz steps and 100 Hz steps are available.

What is the notch function? The notch function is a narrow filter that eliminates unwanted CW or AM carrier tones while preserving the desired voice signal. The DSP circuit automatically adjusts the notch frequency to effectively eliminate unwanted tones. \$2 TX SWITCH [TX] (p. 87) Push to turn the TX function ON and OFF. · Use [RIT/TX] control to vary the TX frequency. What is the PBT control? The PBT function electronically modifies the IF passband width to reject interference. This transceiver uses the DSP circuit for the PBT function. PBT2 PBT1 Push and hold for 1 sec. to add the TX shift frequency to the operating frequency. What is the TX function? TX shifts the transmit frequency without shifting the receive frequency. This is useful for simple split frequency operation in CW, etc. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 8 \$3 CLEAR SWITCH [CLEAR] (pgs. 73, 87) Push or push and hold for 1 sec. * to clear the RIT/TX shift frequency. + * Depending on the quick RIT/TX clear function setting (p. 132). \$4 TRANSMIT FREQUENCY CHECK SWITCH [XFC] Monitors the transmit frequency (including TX frequency offset) when pushed and held during split frequency operation. (p. 88) High cut Center Low cut \$0 PBT CLEAR SWITCH [PBT-CLR] (p. 75) Push and hold for 1 sec. to clear the PBT settings. · The indicator on this switch lights green when PBT is in use. · While pushing and holding this switch, the transmit frequency can be changed with the main dial, keypad, memo pad or [J/] switches. · When the split lock function is turned ON, pushing [XFC] cancels the dial lock function. (pgs. 88, 129) \$1 NOTCH SWITCH [NOTCH] (p. 83) Switches the notch function between auto, manual and OFF in SSB and AM modes. · Either auto or manual notch function can be deactivated in others set mode. (p. 132) Monitors the operating frequency directly when pushed and held when the RIT function is turned ON.

(RIT is temporarily cancelled.) (p. 73) \$5 MAIN/SUB-M.SCOPE SWITCH [MAIN/SUB M.SCOPE] Push to select access to the main or sub readout. (p. 26) · The selected readout frequency is displayed clearly. The sub readout functions only during split operation or dualwatch. Turns the manual notch function ON and OFF when pushed in CW, RTTY and PSK mode. Turns the auto notch function ON and OFF when pushed in FM mode. · " " appears when manual notch is in use. · " " appears when auto notch is in use. · No indicator appears when the notch function is not in use. Push and hold for 1 sec. to turn the main spectrum scope screen indicator ON and OFF.

(p. 67) · The main spectrum scope screen can be indicated with another screen, such as memory, set mode screen, simultaneously. Push and hold for 1 sec. to switch the manual notch characteristics from wide, middle and narrow when manual notch function is activated. · The indicator on this switch lights green when the function is activated.

1 PANEL DESCRIPTION Front panel (continued) \$6 TIMER HF/50MHz TRANSCEIVER \$7 \$8 \$9 %0 %1 1.8 10 1 4 7 TX RX SPLIT LOCK SPLIT DUAL WATCH 3.5 14 24 50 2 5 8 0 7 18 28 3 6 9 TWIN-PBT POWER TRANSMIT TUNER MONITOR 21 GENE PHONES BAL NR CHANGE MAIN /SUB F-INP ENT MP-W MW MP-R VFO/MEMO PBT-CLR NOTCH APF/TPF M.SCOPE NOTCH CW PITCH ELEC-KEY %2 %3 %4 XFC NB AF TS NR RF/SQL RIT MIC F-1 F-2 F-3 F-4 F-5 F-6 AUTO TUNE TX RIT/ TX CLEAR %5 SSB MIC GAIN RF POWER BK-IN DELAY KEY SPEED CW RTTY/PSK AM/FM FILTER EXIT/SET REC PLAY SPEECH LOCK VOICE MEMORY \$6 MEMORY UP/DOWN SWITCHES [J/] (p. 99) Push to select the desired memory channel. · Memory channels can be selected both in VFO and memory modes. Push to select the desired memory channel directly after pushing [F-INP ENT] and a memory channel number. \$7 MEMORY WRITE SWITCH [MW] (p. 101) Stores the selected readout frequency and operating mode into the displayed memory channel when pushed and held for 1 sec. · This function is available both in VFO and memory modes.

%0 VFO/MEMORY SWITCH [VFO/MEMO] Switches the selected readout operating mode between the VFO and memory when pushed. (pgs. 26, 99) Transfers the memory contents to VFO when pushed and held for 1 sec. (p. 102) %1 QUICK TUNING SWITCH [TS] Turns the quick tuning step ON and OFF. (p. 29) · While the quick tuning indicator, "Z," is displayed above the frequency indicator, the frequency can be changed in programmed kHz steps. · 0.1, 1, 5, 9, 10, 12.5, 20 and 25 kHz steps are available for each operating mode independently.

\$8 MEMO PAD-WRITE SWITCH [MP-W] (p. 104) Programs the displayed readout frequency and operating mode into a memo pad. · The 5 most recent entries remain in memo pads. · The memo pad capacity can be expanded from 5 to 10 in others set mode. (p. 132) When the quick tuning step is ON, push and hold for 1 sec. to enter quick tuning step set mode. (p. 29) When the quick tuning step is OFF, push and hold for 1 sec. to turn the 1 Hz tuning step ON and OFF.

(p. 30) %2 AUDIO PEAK FILTER/TWIN PEAK FILTER SWITCH [APF/TPF] During CW mode operation (p. 39) Push to turn the audio peak filter ON and OFF. · " " appears when audio peak filter is in use. \$9 MEMO PAD-READ SWITCH [MP-R] (p. 104) Each push calls up a frequency and operating mode in a memo pad. The 5 (or 10) most recently programmed frequencies and operating modes can be recalled, starting from the most recent. · The memo pad capacity can be expanded from 5 to 10 in others set mode. (p. 132) When the audio peak filter is ON, push and hold for 1 sec.

to select the APF passband width from WIDE, MID and NAR or from 320, 160 and 80 Hz depending on APF type setting (SOFT or SHARP). During RTTY mode operation (p. 47) Push to turn the twin peak filter ON and OFF. · " " appears when twin peak filter is in use. · The indicator on this switch lights green when the function is activated. 9 PANEL DESCRIPTION 1 %3 CW PITCH CONTROL [CW PITCH] (outer control; p. 38) Shifts the received CW audio pitch and the CW setone pitch without changing the operating frequency. Higher frequency Lower frequency %4 MANUAL NOTCH FILTER CONTROL [NOTCH] (inner control; p. 83) Varies the notch frequency of the manual notch filter to reject an interfering signal while the manual notch function is ON.



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· Notch filter center frequency: LSB/RTTY/PSK-R : 1040 Hz to +4060 Hz USB/RTTY-R/PSK : 1060 Hz to +4040 Hz CW : CW ptch freq. 2540 Hz to CW ptch freq. +2540 Hz AM : 5100 Hz to +5100 Hz Higher frequency 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 10 Lower frequency %5 RIT SWITCH [RIT] (p. 73) Push to turn the RIT function ON and OFF. · Use [RIT/TX] control to vary the RIT frequency. Push and hold for 1 sec. to add the RIT shift frequency to the operating frequency. What is the RIT function? The RIT (Receiver Incremental Tuning) shifts the receive frequency without shifting the transmit frequency. This is useful for fine tuning stations calling you off-frequency or when you prefer to listen to slightly different sounding voice characteristics, etc. 1 PANEL DESCRIPTION Rear panel q w e r 1 ANT 2 DC 13.8V X-VERTER RX-ANT IN OUT ACC ALC SEND 1 2 KEY METER REMOTE EXT-SP TUNER !7 !6 !5 !4 !3 !2 !1 !0 oiu yt q GROUND TERMINAL [GND] (p. 16) Connect this terminal to a ground to prevent electrical shocks, TVI, BCI and other problems. w ANTENNA CONNECTOR 1 [ANT1] e ANTENNA CONNECTOR 2 [ANT2] (pgs. 17, 112) Accept a 50 ϕ antenna with a PL-259 plug connector. When using an optional AH-4 HF/50 MHz AUTOMATIC ANTENNA TUNER, connect it to the [ANT1] connector. The internal antenna tuner activates for [ANT2] and deactivates for [ANT1] when connecting the AH-4. r DC POWER SOCKET [DC 13.8V] (p. 20) Accepts 13.8 V DC through the supplied DC power cable. Rear panel view u USB (Universal Serial Bus) CONNECTOR (B type) [USB] (B) Connect a USB cable to be used for the modulation input (p. 124), the transceiver operation with PC, the received audio and the decoded character report to the PC. CAUTION: For Windows[®] XP/2000: NEVER install the USB driver into the PC before connecting the transceiver and PC using a USB cable. For Windows Vista[™]: NEVER connect a PC using a USB cable until the USB driver installation has been completed. About the USB driver: Icom HP (<http://www.com.co.jp/world/support/index.html>) gives the USB driver and the installation guide download service. The following items are required: PC · Microsoft[®] Windows[®] XP/2000 or Microsoft[®] Windows Vista[™] installed · With USB port Other items · USB cable (third party) · PC software About the modulation input: Select "USB" in the ACC set mode item 'DATA OFF MOD,' 'DATA1 MOD,' 'DATA2 MOD' or 'DATA3 MOD.' And the modulation input level from USB jack can be set in the ACC set mode item 'USB MOD Level.' (p. 124) t EXTERNAL SPEAKER JACK [EXT-SP] (p. 18) Connects an external speaker (48 ϕ), if desired. y CI-V REMOTE CONTROL JACK [REMOTE] (pgs. 151, 18) Connects a PC via the optional CT-17 ci-v level converter for external control of the transceiver. Used for transceiver operation with another Icom CI-V transceiver or receiver. 11 PANEL DESCRIPTION 1 i METER JACK [METER] (p. 19) Outputs a signal showing received signal strength, transmit output power, VSWR, ALC, speech compression, Vd or Id level for external meter indication. o STRAIGHT KEY JACK [KEY] (p. 17) Accepts a straight key or external electronic keyer output using a 1/4 inch standard plug. · [ELEC-KEY] on the front panel can be used for a straight key or external electronic keyer. Deactivate the internal electronic keyer in keyer set mode. (p. 45) (+) !5 RECEIVE ANTENNA OUT [RX ANT OUT] !6 RECEIVE ANTENNA IN [RX ANT IN] Located between the transmit/receive switching circuit and receiver's RF stage. Connects an external unit, such as preamplifier or RF filter, using RCA connectors, if desired. In this case, the antenna connector must be selected as "ANT 1/R" or "ANT 2/R." (p. 112) · When no external unit is connected, "ANT 1" or "ANT 2" must be selected. Receiver IN 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 12 () [RX ANT] OUT !0 ACCESSORY SOCKET 2 [ACC 2] !1 ACCESSORY SOCKET 1 [ACC 1] Enable connector of external equipment such as a linear amplifier, an automatic antenna selector/tuner, a TNC for data communications, etc. · See p. 24 for socket information. Transmit/Receive switching circuit ANT !2 TUNER CONTROL SOCKET [TUNER] (p. 18) Accepts the control cable from an optional AH-4 HF/50 MHz AUTOMATIC ANTENNA TUNER. Transmitter !3 SEND CONTROL JACK [SEND] (p. 18) Connects to ground when transmitting to control an external unit, such as a non-Icom linear amplifier. NOTE: T/R control voltage and current must be less than 16 V DC/0.5 A (or 250 V AC, 200 mA with MOSFET switching). !4 ALC INPUT JACK [ALC] (p. 18) Connects to the ALC output jack of a non-Icom linear amplifier. !7 TRANSVERTER CONNECTOR [X-VERTER] (p. 18) External transverter input/output connector. Activated by voltage applied to [ACC 2] pin 6, or when the transverter function is in use. (p. 24) 1 PANEL DESCRIPTION LCD display @0 @1 @2 !9 q w e r @3 @4 t y u i !0 !8 !5 !1 !7 o !0 w !1 e !2 !3 !4 !6 !3 !2 !5 q /RF METER (pgs. 35, 126) Shows the signal strength while receiving. Shows the relative output power, SWR, ALC, VD, ID or compression levels while transmitting. · A total of 3 meter types are available. · Standard meter w IF FILTER INDICATOR (p. 76) Shows the selected IF filter number. e QUICK TUNING INDICATOR (p. 29) Appears when the quick tuning step function is in use. r BANDWIDTH INDICATOR (p. 75) Shows the passband width of the IF filter. t SHIFT FREQUENCY INDICATOR (p. 75) Shows the shift frequency of the IF filter. · Edgewise meter y PASSBAND WIDTH INDICATOR (p. 75) Graphically displays the passband width for twin PBT operation and center frequency for IF shift operation. u BANDPASS FILTER INDICATOR Appears when the narrow filter (500 Hz or less) is selected during SSB, CW, RTTY or PSK operation. i CLOCK READOUT Shows the current time. Local and UTC time can be indicated at the same time. · Offset time period for UTC time can be set in time set mode. (p. 115) · Bar meter 13 PANEL DESCRIPTION 1 o RTTY TUNING INDICATOR Shows the tuning condition in RTTY mode. !0 MODE INDICATOR Shows the selected mode. !1 FREQUENCY READOUTS Shows the operating frequency. · Gray characters are used for not-selected readout. @2 NOTCH INDICATOR (p. 83) " " appears when the manual notch function is in use. This function is available in SSB, CW, RTTY, PSK and AM modes. " " appears when the auto notch function is in use. This function is available in SSB, AM and FM modes. @3 APF/TPF INDICATOR " " appears when the audio peak filter function is in use. This function is available in CW mode. (p. 39) " " appears when the twin peak filter function is in use. This function is available in RTTY mode. (p. 47) @4 DUAL WATCH INDICATOR " " appears when the dual watch function is in use. !2 MEMORY CHANNEL READOUTS Shows the selected memory channel contents in VFO mode. Shows the VFO contents in memory mode. !3 SELECT MEMORY CHANNEL INDICATOR (p. 109) Indicates the displayed memory channel is set as a select memory channel.



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!4 MULTI-FUNCTION SCREEN Shows the screens for the multi-function digital meter, spectrum scope, voice recorder, memory list, scan, memory keyer, RTTY decoder, PSK decoder, IF filter selection or set modes, etc. !5 VFO/MEMORY CHANNEL INDICATOR (p. 26) Indicates the VFO mode or selected memory channel number. !6 LCD FUNCTION SWITCH GUIDE Indicates the function of the LCD function switches ([F-1] to [F-6]). !7 MULTI-FUNCTION SWITCH GUIDE Indicates the function of the multi-function switches. !8 TX INDICATOR " " appears while transmitting. (p. 36) Indicates the frequency readout for transmit.

" " appears during an operating frequency not on an amateur band. When the band edge warning beep is set to "OFF" (p. 31), " " does not appear. · Appears on the sub band readout when the split function is turned ON. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 14 !9 RIT INDICATOR " appears when RIT function is used. " @0 TX INDICATOR " appears when TX function is used. " @1 RIT/TX SHIFT FREQUENCY INDICATOR Shows the shift frequency for the RIT or TX function. 1 PANEL DESCRIPTION Screen menu arrangement The following screens can be selected from the start-up screen. Choose the desired screen using the following chart. Pushing [EXIT/SET] several times returns to the start-up screen.

See p. 119 for set mode arrangement. · PSK decoder screen (PSK mode; p. 54) F-1 F-2 F-3 F-4 F-5 F-6 F-3 · Spectrum scope screen (p. 65) · Memory list screen (p. 100) F-4 · Voice recorder screen* (p. 90) · Scan screen (VFO mode; p. 107) F-2 F-5 · Memory keyer screen (CW mode; p. 40) · Scan screen (Memory mode; p. 109) F-3 F-5 · RTTY decoder screen (RTTY mode; p.

46) · Set mode menu screen (p. 118) F-3 F-6 *Previously selected screen, TX or RX memory, is displayed. Push [T/R] (F-6) to switch the screen. 15 INSTALLATION AND CONNECTIONS Unpacking After unpacking, immediately report any damage to the delivering carrier or dealer. Keep the shipping cartons. For a description and a diagram of accessory equipment included with the IC-7600, see 'Supplied accessories' on p. of this manual. 2 Antenna connection For radio communications, the antenna is of critical importance, along with output power and receiver sensitivity. Select antenna(s), such as a well-matched 50 Ω antenna, and feedline. We recommend 1.

5:1 or better of Voltage Standing Wave Ratio (VSWR) on your operating bands. The transmission line should be a coaxial cable. When using a single antenna, use the [ANTI] connector. Selecting a location Select a location for the transceiver that allows adequate air circulation, free from extreme heat, cold, or vibrations, and away from TV sets, TV antenna elements, radios and other electromagnetic sources. The base of the transceiver has adjustable feet for desktop use. Set the feet to one of two angles depending on your operating preference. CAUTION: Protect your transceiver from lightning by using a lightning arrester. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 16 PL-259 CONNECTOR INSTALLATION EXAMPLE q 30 mm Coupling ring 10 mm (soft solder) 10 mm Slide the coupling ring down. Strip the cable jacket and soft solder. Strip the cable as shown at left.

Soft solder the center conductor. Slide the connector body on and solder it. Screw the coupling ring onto the connector body. w Soft solder 12 mm Grounding To prevent electrical shock, television interference (TVI), broadcast interference (BCI) and other problems, ground the transceiver through the GROUND terminal on the rear panel. For best results, connect a heavy gauge wire or strap to a long ground rod.

Make the distance between the [GND] terminal and ground as short as possible. terminal to a gas or electric pipe, since the connection could cause an explosion or electric shock. [GND] e solder solder r 30 mm (9/8 n) 10 mm (3/8 n) 12 mm (1/16 n) R WARNING: NEVER connect the [GND] Each antenna is tuned for a specified frequency range and SWR may be increased out-of-range. When the SWR is higher than approx. 2.

0:1, the transceiver's power drops to protect the final transistors. In this case, an antenna tuner is useful to match the transceiver and antenna. Low SWR allows full power for transmitting. The IC-7600 has an SWR meter to monitor the antenna SWR continuously. Antenna SWR 2 INSTALLATION AND CONNECTIONS Required connections D Front panel CW KEY TIMER HF/50MHz TRANSCEIVER TX RX SPLIT LOCK SPLIT DUAL WATCH 1.8 10 1 4 7 3.5 14 24 50 2 5 8 0 7 18 28 3 6 9 TWIN-PBT POWER TRANSMIT TUNER MONITOR 21 GENE PHONES BAL NR CHANGE MAIN /SUB F-INP ENT MP-W MW MP-R VFO/MEMO PBT-CLR NOTCH APF/TPF M.SCOPE NOTCH CW PITCH ELEC-KEY XFC NB AF TS NR RF/SQL RIT MIC F-1 F-2 F-3 F-4 F-5 F-6 AUTO TUNE TX RIT/ TX CLEAR SSB MIC GAIN RF POWER BK-IN DELAY KEY SPEED CW RTTY/PSK AM/FM FILTER EXIT/SET REC PLAY SPEECH LOCK VOICE MEMORY A straight key can be used when the internal electronic keyer is turned OFF in keyer set mode. (p. 45) MICROPHONES (p.

23) HM-36 SM-50 D Rear panel ANTENNA 1, 2 (p. 16) [Example]: ANTI for 1.818 MHz bands ANT 2 for 2128 MHz bands DC POWER SUPPLY (p. 20) PS-126 1 ANT 2 DC 13.8V X-VERTER RX-ANT IN OUT ACC ALC SEND 1 2 KEY METER REMOTE EXT-SP TUNER GROUND (p. 16) Use the heaviest gauge wire or strap available and make the connection as short as possible. Grounding prevents electrical shocks, TVI and other problems. STRAIGHT KEY 17 INSTALLATION AND CONNECTIONS 2 Advanced connections D Front panel USB-MEMORY HEADPHONES TIMER HF/50MHz TRANSCEIVER TX RX SPLIT LOCK SPLIT DUAL WATCH 1.8 10 1 4 7 3.5 14 24 50 2 5 8 0 7 18 28 3 6 9 TWIN-PBT POWER TRANSMIT TUNER MONITOR 21 GENE PHONES BAL NR CHANGE MAIN /SUB F-INP ENT MP-W MW MP-R VFO/MEMO PBT-CLR NOTCH APF/TPF M.

SCOPE NOTCH CW PITCH ELEC-KEY XFC NB AF TS NR RF/SQL RIT MIC TX RIT/ TX CLEAR KEYBOARD Connects a USB type PC keyboard directly for RTTY/PSK operation, as well as other text edit operations. F-1 F-2 F-3 F-4 F-5 F-6 AUTO TUNE SSB MIC GAIN RF POWER BK-IN DELAY KEY SPEED CW RTTY/PSK AM/FM FILTER EXIT/SET REC PLAY SPEECH LOCK VOICE MEMORY EXTERNAL KEYPAD Connects an external keypad for direct voice memory, keyer memory, RTTY TX memory and PSK TX memory controls. To [MIC] connector pin e 1.5k \pm 5% 1 2 3 4 5 6 7 8 EXTERNAL KEYPAD 1.5k \pm 5% 2.

2k \pm 5% 4.7k \pm 5% MIC The AFSK modulation signal can also be input to [MIC]. To [MIC] connector pin u S1 S2 S3 S4 (T1/M1/ (T2/M2/ (T3/M3/ (T4/M4/ RT1/PT1) RT2/PT2) RT3/PT3) RT4/PT4) D Rear panel-- 1 with AH-4 (p.



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20) AH-2b or long wire [REMOTE] (p. 151) Used for computer control and transceive operation.

The optional CT-17 is required when connecting a PC to [REMOTE]. 9 10 11 12 13 DC 13.8V ANTENNA 1, 2 (p. 112) Connects a linear amplifier, antenna selector, etc. [X-VERTER] Connects a transverter for V/UHF band use. 1 ANT 2 14 15 ACC X-VERTER RX-ANT IN OUT ALC SEND 1 2 KEY METER REMOTE EXT-SP 16 17 18 TUNER RX ANT IN/OUT Connects an external preamp or lowpass filter. The antenna connector must be selected as "ANT 1/R" or "ANT 2/R." (p. 3) ACC SOCKETS 1, 2 (pgs. 22, 24) [ALC], [SEND] (p.

21) Used for connecting a non-Icom linear amplifier. EXTERNAL SPEAKER (p. 161) 19 20 21 18 SP-23 (option) 2 INSTALLATION AND CONNECTIONS D Rear panel-- 2 1 ANT 2 DC 13.8V X-VERTER RX-ANT IN OUT ACC ALC SEND 1 2 KEY METER REMOTE EXT-SP TUNER [METER] Connects an external meter, etc. 3.5 (d) mm; 1/8" plug [USB] (B) When the transceiver is connected to a PC, a USB cable (third party) should be connected to the USB connector (B type) on the rear panel. (p. 11) Output impedance : 4.7 k Ω Output voltage (open circuit) : 2.5 V (default) Output voltage can be adjusted 0 to 5 V in ACC set mode.

(p. 125) USB connection Connect the USB-Memory* to the USB connector (A type) on the front panel. · Unmount operation s recommended before removing the USB-Memory* (p.142). Be sure to connect the USB-Memory correctly.

NEVER connect or remove the USB-Memory when the read/wrt ndicator lghts or blnks. A USB keyboard* or a USB hub* can also be connected to the USB connector. * USB-Memory, USB keyboard and USB hub are not supplied by Icom. or 19 INSTALLATION AND CONNECTIONS 2 Power supply connections Use a DC power supply with a 23 A capacity when operating the transceiver with AC power. Refer to the diagrams below.

cable, check the following important items. Make sure: · The [POWER] switch s OFF. · Output voltage of the power source s 1215 V when you use a non-Icom power supply. · DC power cable polarity s correct. Red : Postve + terminal Black : Negative _ terminal CAUTION: Before connecting the DC power CONNECTING PS-126 DC POWER SUPPLY AC outlet To DC power socket PS-126 Transceiver 1 2 3 4 5 AC cable DC power cable GND 6 7 Transceiver CONNECTING A DC POWER SUPPLY AC outlet A DC power supply 13.8 V; at least 23 A + _ 8 9 10 11 12 13 14 15 16 17 Long wire or optional AH-2b GND 30 A fuses AC cable Red Black To DC power socket Supplied DC power cable External antenna tuner connection CONNECTING THE AH-4 The AH-4 must be connected to [ANTI]. Coaxial cable (from the AH-4) [ANTI] Transceiver 18 19 20 21 20 [TUNER] GND Control cable GND AH-4 2 INSTALLATION AND CONNECTIONS Linear amplifier connections D Connecting the IC-PW1/EURO Remote control cable (supplied with the IC-PW1/EURO) To an antenna ACC-1 ACC cable (supplied with the IC-PW1/EURO) Coaxial cable REMOTE (supplied with the IC-PW1/EURO) INPUT1 INPUT2 ANT Be sure to connect the cable to the 7-pin ACC 2 jack. Coaxial cable* Connect [INPUT2] if necessary GND ANTI ANT2 ACC 2 REMOTE GND IC-PW1/EURO AC outlet (Non-European versions : 100120/220240 V European version : 230 V) GND Transceiver *Purchase separately D Connecting a non-Icom linear amplifier Transceiver ANTI R WARNING: Set the transceiver output power and linear amplifier ALC output level after referring to the linear amplifier nstruction manual. The ALC nput level must be n the range 0 V to 4 V. The transceiver does not accept postve voltage.

Non-matched ALC and RF power settings could overheat or damage the linear amplifier. The maximum signal level of [SEND] jack s 16 V/0.5 A DC with ntal setting, and 250 V/200 mA with "MOSFET" setting (see p. 125 for details). Use an external relay unt f your non-Icom linear amplifier requires control voltage and/or current greater than specified. To an antenna 50 ϕ coaxial cable RF OUTPUT RF INPUT ALC SEND ALC SEND Non-Icom linear amplifier 21 INSTALLATION AND CONNECTIONS 2 Transverter jack information When 2 to 13.8 V s applied to pn 6 of [ACC 2], the [X-VERTER] connector s activated for transverter operation and the antenna connectors do not receive or transmit any signals. While receiving, the [X-VERTER] connector can be activated as an nput terminal from an external transverter. Transverter connector While transmitting, the [X-VERTER] connector outputs signals of the displayed frequency at 20 dBm (22 mV) as signals for the external transverter. 1 2 3 4 5 FSK and AFSK (SSTV) connections To connect a TNC or scan converter, etc., refer to the diagram below. D FSK operation-- when connecting to [ACC 1] · When using a PC application RTTY GND 4 1 6 2 8 7 5 3 RTTY OUTPUT GND AUDIO INPUT PTT AF SEND Connect to serial port, parallel port, speaker jack, microphone jack and line IN/OUT jack, etc. See the instruction manual of the application for details. PC 6 7 8 9 10 11 Rear panel view · When using a TNC RTTY GND 4 1 6 2 8 7 5 3 TNC or scan converter RTTY OUTPUT GND AUDIO INPUT PTT RS-232C AF SEND Rear panel view D AFSK operation · When connecting to [ACC 1] z x 4 1 6 2 8 7 5 3 · When using a PC application Audio output GND AF input PTT Connect to serial port, parallel port, speaker jack, microphone jack and line IN/OUT jack, etc. See the instruction manual of the application for details.

12 13 PC c v b n z x c v 14 15 16 17 18 19 20 21 22 Rear panel view · When connecting to [MIC] z c x b v* n z x c v b n AFSK output AF input PTT* GND SQL input · When using a TNC TNC or scan converter RS-232C u q w i e t r Front panel view *When using the VOX function, no need to connect. Refer to the instruction manual of the external equipment (TNC, etc.). When connecting the squelch line, consult the necessary manual (TNC, etc.).

D When connecting to the [USB] connector Connect a USB cable (third party's) between the transceiver's USB connector [USB] (B) on the rear panel and the PC. (p. 19) · Icom HP (<http://www.com.co.jp/world/support/index.html>) gives the USB driver and the nstallaton guide download service. 2 INSTALLATION AND CONNECTIONS Microphone connector information (Front panel view) i Main readout AF output (varies with [AF]) q Microphone input w +8 V DC output e Frequency up/down u GND (Microphone ground) y GND (PTT ground) i PTT r Main readout squelch switch [MIC] Pin No. w e r FUNCTION +8 V DC output Frequency up Frequency down Squelch open Squelch closed DESCRIPTION Max. 10 mA Ground Ground through 470 "Low" level "High" level CAUTION: DO NOT short pn 2 to ground as this can damage the nternal 8 V regulator.

DC voltage s applied to pn 1 for microphone operation.



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Use caution when using a non-Icom microphone. Microphones D HM-36 q q w q UP/DOWN SWITCHES [UP]/[DN] Change the selected readout frequency or memory channel. · Pressing a switch continuously changes the frequency or memory channel number continuously. · While pushing [XFC], the transmit readout frequency can be controlled while in split frequency operation. · The [UP]/[DN] switch can simulate a key paddle. Preset in the keyer set mode. (p. 45) w PTT SWITCH Push and hold to transmit; release to receive. e PTT LOCK SWITCH (available for SM-50 only) Push to toggle between transmit and receive. D SM-50 (Option) r LOW CUT SWITCH (available for SM-50 only) Push to cut out the low frequency components of input voice signals. q r q w r w e 23 INSTALLATION AND CONNECTIONS 2 Accessory connector information ACC 1 PIN No. 1 2 NAME RTTY GND DESCRIPTION Controls RTTY keying Connects to ground. Input/output pin. Goes to ground when transmitting.

When grounded, transmits. Modulator input. Connects to a modulator SPECIFICATIONS "High" level "Low" level Output current Ground level Output current Input current (Tx) Input impedance Input level : More than 2.4 V : Less than 0.6 V : Less than 2 mA : 0. 5 V to 0.8 V : Less than 20 mA : Less than 200 mA : 10 k : Approx. 100 mV rms Connected in parallel with ACC 2 pin 2. 3 2 4 5 1 83 6 7 SEND Connected in parallel with ACC 2 pin 3. 4 5 6 7 MOD AF SQLS 13.8 V 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 24 AF detector output. Output impedance : 4.7 k Ohms. Fixed, regardless of [AF] position : 100300 mV rms Output level default settings. (see notes below) Squelch output. SQL open Goes to ground when squelch opens.

SQL closed 13.8 V output when power is ON. Output current Control voltage Input impedance : Less than 0.3 V/5 mA : More than 6.0 V/100 µA : Max. 1 A : 4 V to 0 V : More than 10 k Connected in parallel with ACC 2 pin 7. 8 ALC ALC voltage input. Connected in parallel with ACC 2 pin 5. ACC 2 PIN No. 1 2 4 1 6 2 5 3 7 NAME 8V GND SEND BAND ALC TRV 13.

8 V DESCRIPTION Regulated 8 V output. Same as ACC 1 pin 2. Same as ACC 1 pin 3. Band voltage output. (Vares with amateur band) Same as ACC 1 pin 8. SPECIFICATIONS Output voltage Output current : 8.0 V ±0.3 V : Less than 10 mA 3 4 5 6 7 Output voltage : 0 to 8.0 V Activates [X-VERTER] input/output Input impedance when "HIGH" voltage is applied. Input voltage Same as ACC 1 pin 7. : More than 10 k : 2 to 13.8 V NOTE: If the CW setone level limit or beep level limit is not used, the CW setone or beep tone decreases from the fixed level when the [AF] control is rotated above a specified level. (p. 123) 3 BASIC OPERATION Before first applying power Before first applying power, make sure all connections required for your system are complete by referring to Chapter 2. [BAL] : 12 o'clock TIMER HF/50MHz TRANSCEIVER After all connections have been done, set controls and switches as shown in the figure below. CW : Max. clockwise CCW : Max. counterclockwise [NR] : Max. CCW TX RX SPLIT LOCK SPLIT DUAL WATCH 1.8 10 1 4 7 3.

5 14 24 50 2 5 8 0 7 18 28 3 6 9 TWIN-PBT POWER TRANSMIT TUNER MONITOR 21 GENE PHONES BAL NR CHANGE MAIN /SUB F-INP ENT MP-W MW MP-R VFO/MEMO PBT-CLR NOTCH APF/TPF M.SCOPE NOTCH CW PITCH ELEC-KEY [RF/SQL] : 12 o'clock [AF] : Max. CCW MIC XFC NB AF TS NR RF/SQL [NOTCH] : 12 o'clock RIT TX RIT/ TX CLEAR F-1 F-2 F-3 F-4 F-5 F-6 AUTO TUNE [CW PITCH] : 12 o'clock SSB MIC GAIN RF POWER BK-IN DELAY KEY SPEED CW RTTY/PSK AM/FM FILTER EXIT/SET REC PLAY SPEECH LOCK VOICE MEMORY [MIC GAIN] : 12 o'clock [RF POWER] : Max. CW [BK-IN DELAY] : 12 o'clock [KEY SPEED] : 1012 o'clock Applying power (CPU resetting) First applying power: Reset the transceiver using the following procedure. Resetting CLEARS all programmed contents in memory channels and returns programmed values in set mode to default values. q Make sure the transceiver power is OFF. w While pushing and holding [F-INP ENT] and [MW], push [POWER] to turn power ON. · The CPU is reset. · The CPU start-up takes approx. 5 sec.

· The transceiver displays its initial VFO frequencies when resetting is complete. POWER MW F-INP ENT e Change the set mode settings after resetting, if desired. Normal applying power: Push [POWER] to turn power ON, then check the display. When any of indicators appear, turn them OFF if necessary. (See the appropriate page for details.)

) 25 BASIC OPERATION 3 Selecting VFO/memory mode Push [VFO/MEMO] to switch between VFO and memory modes. · "VFO" appears when in VFO mode, or the selected memory channel number appears when in memory mode. · Pushing and holding [VFO/MEMO] for 1 sec. transfers the contents of the selected memory channel to VFO mode. (p.

102) VFO/MEMO 1 2 "VFO" indicator Memory channel number 3 4 5 6 7 8 9 10 Main/Sub band selection The IC-7600 has the main and sub band. The main band is displayed on the left hand side, and the sub band is displayed on the right hand side of the LCD. Some functions can only be applied to the selected band and transmission occurs on the main band (except during split frequency operation). Push [MAIN/SUB M.SCOPE] to select access to the main or sub band readout. · The selected readout frequency is displayed clearly. The sub readout functions only during split operation or dualwatch. MAIN band SUB band MAIN band SUB band MAIN /SUB M.SCOPE 11 12 13 Access to MAIN band Access to SUB band 14 15 16 17 18 19 20 21 26 D Main/Sub band switching Push [CHANGE] to switch the frequency and selected memory channel between main and sub readouts. · Switches between transmit frequency and receive frequency when the split frequency function is ON.

(p. 88) CHANGE D Main/Sub band equalization Push and hold [CHANGE] for 1 sec. to equalizes the sub band readout to the main band readout. 3 BASIC OPERATION Selecting an operating band The triple band stacking register provides 3 memories for each band key, storing frequency and mode information. This function is convenient when you operate 3 operating modes on one band. For example, one register is used for a CW frequency, another for a SSB frequency and the other one for a RTTY frequency. If a band key is pushed once, the frequency and operating mode last used are called up. When the key is pushed again, another stored frequency and operating mode are called up. See the table below for a list of the bands available and the default settings for each band. BAND 1. 8 MHz 3.5 MHz 7 MHz 10 MHz 14 MHz 18 MHz 21 MHz 24 MHz 28 MHz 50 MHz General REGISTER 1 1.900000 MHz CW 3.550000 MHz LSB 7.050000 MHz LSB 10.

120000 MHz CW 14.100000 MHz USB 18.100000 MHz USB 21.200000 MHz USB 24.950000 MHz USB 28.

500000 MHz USB 50.100000 MHz USB 15.000000 MHz USB REGISTER 2 1.910000 MHz CW 3.560000 MHz LSB 7.060000 MHz LSB 10.



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