Dynon Radios SV-COM-760 VHF Aviation Transceiver User Guide

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Com Radio Operation

The SV-COM-X25, SV-COM-X83, and SV-COM-C25 integrate with your SkyView HDX system in a novel way, allowing you to “load” airports to it to enable quick, single button-push frequency tuning via the dedicated TWR, ATIS, GND, and ATC buttons. You can also send individual frequencies to your SkyView Com radio from SkyView HDX’s airport info pages. And of course, you can also spin frequencies in the “old-fashioned way” when you’re feeling nostalgic (or are following ATC instructions).
Note: The airport lookup, loading and reverse lookup features of the SV-COM-X25, SV-COM-X83, and SV-COM-C25 require a connected SkyView with a GPS signal, SkyView HDX’s Moving Map, and an aviation database.

Com Control Panel Overview

The SV-COM-X25, SV-COM-X83, and SV-COM-C25 have a dedicated control panel that contains full status information about the radio:

- A: Volume Knob / Power Button
- B: Active Frequency
- C: Associated Airport
- D: Station Type
- E: Standby Frequency
- F: Loaded Airport
- C: Dual Watch Mode Indicator
- H: RX/TX Status Indicator
- I: Airport Button
- J: Dual Concentric Multifunction Knob (Tune, Selection, Flip/Flop)

COM RADIO Control Page

SkyView HDX offers a COM RADIO control page for on-screen control of nearly all the functions available on the dedicated control module. Access the COM RADIO control page either by touching the Com enunciation area on the Top Bar, or selecting MENU (Button 6) on the Main Menu, then selection the COM RADIO icon. The figure below shows the COM RADIO control page.

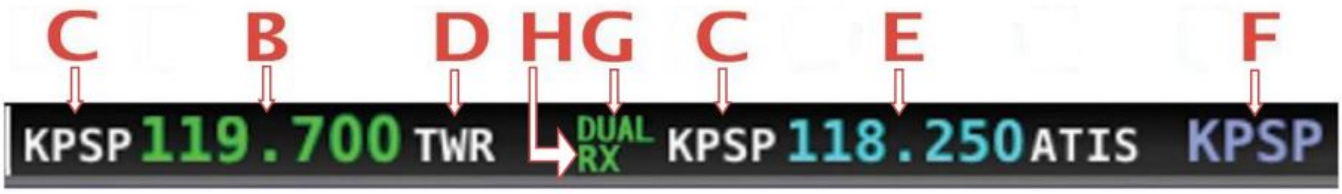
The on-screen COM RADIO control panel offers all the same function controls as the external control module except:

- Volume control.
- Squelch break.
- APT button (functionality is replaced on screen by the NRST option on the Main Menu).

Manual frequency tuning via the on-screen COM RADIO control page is accomplished using the number keypad buttons.

SkyView Top Bar Com Radio Status Overview

Com Radio Status is also reflected in the top bar of your SkyView displays. The identification lettering (B-I) depicted below matches the figure above:



Using your SkyView Com Radio

Power

The SkyView Com Radio normally powers on and off with your SkyView system. Press and hold the Volume Knob / Power Button to manually turn the SkyView Com Radio off and on.

Volume

Use the volume knob to adjust the radio volume. You may want to use Squelch Override – covered below, to aid in finding a comfortable volume level.

Transmitting and Receiving

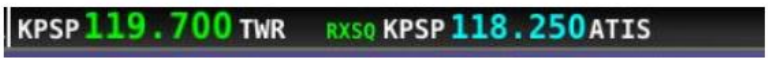
The SV-COM-X25, SV-COM-X83, and SV-COM-C25 transmit on the active frequency only, and normally receives only on that frequency. When transmitting, the following indications are shown:

When receiving on the active frequency, the following indications are shown:

Note: the arrow on the top bar that points to the active frequency, and the up arrow on the RX area of the control panel display that points “up” to the active frequency:

Squelch Override (Monitor)

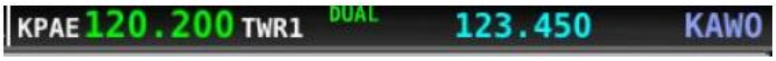
The radio has an automatic squelch function which screens out noise and only receives radio stations that have active transmissions on them. However, you may wish to override this feature to hear a distant radio station or to help set the radio volume. To listen to the active frequency, press the volume knob momentarily. RXSQ will be shown in the RX/TX Status Indicator areas on both the control panel and SkyView Top Bar to indicate the squelch is being overridden:



The squelch setting, which determines how strong a radio transmission must be before the radio receives it, is configured during setup. See the SkyView Classic / SE / HDX System Installation Guide for instructions on adjusting this parameter.

Dual Watch

Press and hold the dual concentric knob to enable dual watch:



When dual watch is enabled, the SkyView Com Radio monitors the standby frequency for transmissions while simultaneously monitoring the active frequency, allowing you to listen to both (but not simultaneously). This allows you to listen to ATIS on standby, for example, while keeping tower tuned to the active frequency. The active frequency always receives priority. This is true even if dual watch is listening to a continuous broadcast on the standby frequency. For example, if ATIS is on standby and tower is on active, and dual watch is enabled, the Com will receive ATIS continuously on standby when there is no tower activity. But, when a tower transmission is received on the active frequency, it immediately takes priority and is heard exclusively. To help you determine whether the radio is receiving on the active or standby frequency, both the control panel and SkyView HDX’s top bar visually indicate which of the standby or active frequency is being received on at any moment:

Manual Frequency Tuning

To manually tune a frequency via the control panel:

- Turn the large, outer ring of the dual concentric knob to change the standby frequency in 1 MHz increments.
- Turn the small, inner ring of the dual concentric knob to change the standby frequency. The SV-COM-X25 and SV-COM-C25 adjust in 25 kHz increments and by either 25kHz or 8.33kHz increments on the SV-COM-X83 (depending on how it is configured).
    - For example, if the frequency you start with is 123.450, turning the large knob will change the numbers before the decimal – 123 – while the small knob will adjust the numbers after the decimal – 450.
- Press the dual concentric knob on the control panel to flip/flop the chosen frequency from the standby frequency to the active frequency.

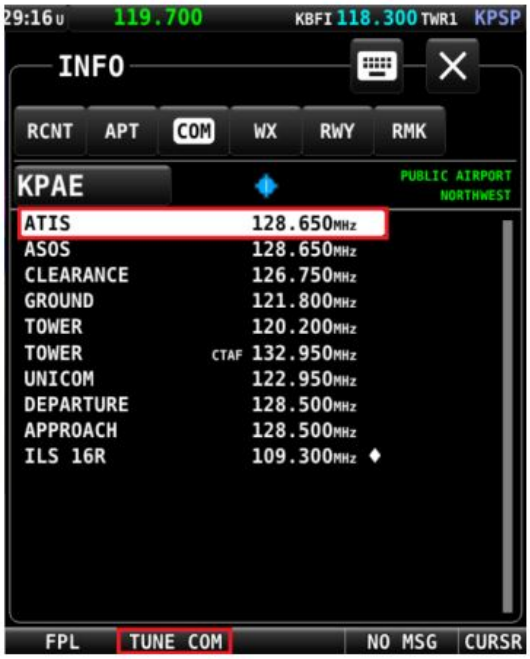
Airport / Station Type Reverse-Lookup
When a frequency is manually tuned, SkyView will search for the closest known airport within 75 miles that has that frequency and automatically show that airport's identifier in the associated airport and station type fields on both the control panel and top bar. For example, if you manually tune 118.300 near Seattle's Boeing Field, the associated airport will be shown as KBFI and the station type as TWR1:

Tuning Individual Frequencies from SkyView HDX

To send an individual frequency from SkyView HDX's airport information pages:

- Select the INFO page for an airport.
- Then, use the knob to select a frequency from under the COM tab:

- With a valid Com frequency highlighted, (a 25kHz frequency on the SV-COM-X25 and SV-COM-C25 and an 8.33kHz on the SV-COM-X83) press the TUNE COM button to send the frequency to the standby frequency:



- Press the dual concentric knob on the control panel to flip/flop the chosen frequency from the standby frequency to the active frequency.

This feature also works when a Garmin SL30, SL40, GTR 225, GNC 255, MGL V6, MGL V10, Trig TY91, Val NAV 2000, and f.u.n.k.e. ATR833 or Icom A210 (with Icom software version 1.53 or newer) is appropriately configured. The SL30 and GNC 255 can additionally receive NAV radio frequencies by selecting VOR, ILS and LOC frequencies (MAP > NRST > VOR > TUNE NAV/ILS/LOC). You can tune NAV frequencies from both the NRST list of VORs, as well as from the detailed VOR and Airport Info pages.

Loading Airports to the SkyView Com Radio
The SV-COM-X25, SV-COM-X83, and SV-COM-C25's most unique and innovative feature is its ability to load airports onto the control panel. Once an airport is loaded, single presses of the TWR, ATIS, GND, and ATC buttons automatically tune those frequencies (to the standby location) for that airport.

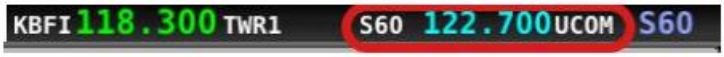
Loading Airports via SkyView

By Nearest

- From SkyView HDX's MAP page, press NRST.
- Highlight the airport you wish to load to the control panel:

- • Press the APT>COM button to load the airport to the control panel:
  - Note this button is only available if SkyView has frequencies for the selected airport:

Use the TWR, ATIS, GND, and ATC buttons on the control panel to send the associated airport frequencies to the standby frequency location:



By Airport Lookup

- From SkyView HDX's MAP page, look up an airport via SkyView HDX's INFO page:

- Press the APT>COM button to load the airport to the control panel:
  - Note this button is only available if SkyView has frequencies for the selected airport.
- Use the TWR, ATIS, GND, and ATC buttons to send the associated airport frequencies to the standby frequency location.

Loading Airports via the Control Panel

By Nearest

- Press the APT button once. NRST APT is displayed on the control panel, and the top bar shows a list of the nearest airports within 75nm of your current location:

- Rotate the small, inner dual concentric knob to the airport you wish to load:

- Press the dual concentric knob on the control panel to load the airport to the control panel (or press APT to cancel your selection):

- Use the TWR, ATIS, GND, and ATC buttons to send the associated airport frequencies to the standby frequency location:

By A-Z / 0-9 Character Entry

- Press the APT button twice:

- Use the dual concentric knob to type an airport identifier. Note that this search is limited to airports within 75

miles of your location to speed up entry by limiting the airport possibilities:

- The small, inner knob chooses characters (A-Z, 0-9).
- The larger, outer knob moves the cursor:

- When the desired airport is displayed, press the dual concentric knob on the control panel to load the airport to the control panel (or press APT to cancel your selection).
- Use the TWR, ATIS, GND, and ATC buttons to send the associated airport frequencies to the standby frequency location.

Using the TWR, ATIS, GND, and ATC Buttons

When an airport is loaded on the radio, press the TWR, ATIS, GND, and ATC buttons to send frequencies associated with that airport to the standby frequency. Repeated presses of these buttons will cycle through all available frequencies of that type (for example busy airports may have multiple tower frequencies):

- **TWR:** Tunes tower, Unicom, and Multicom frequencies.
- **ATIS:** Tunes ATIS and other weather/information frequencies, including AWOS, ASOS, AWIB, and AWIS frequencies.
- **GND:** Tunes ground control frequencies.
- **ATC:** When on the ground: Tunes pre-taxi, clearance, and departure frequencies associated with an airport. When in the air: Tunes departure, center, and approach frequencies when associated with an airport. As of SkyView software version 15.1, there is no longer filtering of ATC frequencies when on the ground and in the air. All ATC frequencies can be tuned at any time.

Other Status Information

Operating Without SkyView

The SV-COM-X25, SV-COM-X83, and SV-COM-C25 can be used when SkyView is powered off or has failed. However, only manual tuning will be available, and the control panel will display NoSV. The control panel annunciates this condition in the following way:

You may see this annunciation as your SkyView displays first power up, as they take longer to initialize than the Com radio.

No Aviation Database

If SkyView does not have an aviation database loaded the airport loading and TWR/ATIS/GND/ATC buttons will not be available. The control panel annunciates this condition by displaying NoDB:

Waiting for Data

The loaded airport area of the control panel will show an animating scrolling black cursor momentarily when it is waiting for airport data from SkyView:

No GPS

The control panel and SkyView top bar annunciate that SkyView does not have GPS position information in the following way:

Without GPS position, airport loading, and TWR/ATIS/GND/ATC will not be available. You may see this annunciation as SkyView starts up or when the aircraft does not have GPS reception (for example, when inside the hangar).

Stuck Mic

If a transmission lasts more than 30 seconds, the mic is assumed to be stuck. Transmitting is discontinued, and

both the top bar and control panel annunciate “STUC” in the TX/RX indication area.

External Flip/Flop

If you have an external flip/flop switch connected (typically to your control stick or yoke), pressing it flip/flops the active and standby frequencies just like pressing the dual concentric knob does. See the SkyView Classic / SE / HDX System Installation Guide for details on connecting an external flip/flop switch.

Dual Com Radios

If you have more than one Com radio that is capable of communicating with SkyView, only the primary Com radio’s status information will be displayed in the Top Bar. Additionally, only the primary radio will receive airports or frequencies from SkyView when SkyView HDX’s TUNE or APT>COM buttons are used. However, if your second Com radio is from Dynon Avionics, all of its control-panel based features work just like the primary radio’s. In other words, you can still use the APT button to load airports, the TWR/GND/ATIS/ATC buttons to tune frequencies, and airport/station types are reverse-looked up when you manually tune the second radio.

Documents / Resources

	Dynon Radios SV-COM-760 VHF Aviation Transceiver [pdf] User Guide SV-COM-760, SVCOM760, WU6-SV-COM-760, WU6SVCOM760, SV-COM-760 VHF Aviation Transceiver, SV-COM-760, VHF Aviation Transceiver