

Declared within	Name	Return value	Description	invoked by	Called functions	Global Const used	Global vars used	Pre Processor Macro	Arguments
CI_V_based_Remote_Antenna_Switch.pde	setup	void	Called by Arduino boot loader at CPU startup. Used to read configuration from EEPROM, init serial communications and display LCD startup banner. It also initializes to default values if unit has never been configured before	CPU Startup	readConfig() lcdInitWithBanner() lcdUpdate() initDefaults() initOutput()	baudRates[]	notConfigured baudRateIndex	NONE	NONE
CI_V_based_Remote_Antenna_Switch.pde	loop	void	Main program body. It checks for CIV data, key status and perform appropriate switching action.	setup()	readCIVData() decodeBand() readKey() configMainMenu() lcdUpdate() displayMessage() switchAntenna() checkErrors() warningLed()	NONE	NONE	NONE	NONE
A_menu.pde	configMainMenu	void	Invoked from loop when starting configuration mode: it displays the first config menu and allow navigation within configurable options. It also invokes save to EEPROM if any value has changed.	loop()	lcdConfigMenu() readKey() configBaudRate() configRtxAddress() configIC735mode() configBandToAntenna() configAntennaName() configSoftwareVersion() configFactoryDefaults()	NONE	configChanged lastMenuOp	MENUTIMEOUT NUMCONFIGITEMS	NONE
A_menu.pde	configBaudRate	void	Manages the baud rate config sub menu	configMainMenu()	lcdConfigBaudRate() lcdPrintAction() readKey()	baudRates[]	baudRateIndex lastMenuOp configChanged	MENUTIMEOUT	NONE
A_menu.pde	configRtxAddress	void	Manages the RTX address config sub menu	configMainMenu()	lcdConfigRtxAddress() readKey() lcdPrintAction()	NONE	rtxAddr lastMenuOp configChanged	MENUTIMEOUT	NONE
A_menu.pde	configIC735mode	void	Manages the IC735 option configuration	configMainMenu()	lcdConfigIC735mode() readKey() lcdPrintAction()	NONE	ic735mode lastMenuOp configChanged	MENUTIMEOUT	NONE
A_menu.pde	configBandToAntenna	void	Associates an antenna to a band	configMainMenu()	lcdConfigBandToAntenna() readKey() lcdPrintAction()	NONE	bandToAnt[] lastMenuOp configChanged	MENUTIMEOUT NUMBANDS NUMANTENNA	NONE
A_menu.pde	configAntennaName	void	Manages antenna names	configMainMenu()	lcdConfigAntennaName() readKey() lcdPrintAction() getValidCharIndex()	validChars[]	lastMenuOp configChanged antennaName[]	MENUTIMEOUT ANTENNANAMELEN NUMANTENNA	NONE
A_menu.pde	configFactoryDefaults	void	Restores default values	configMainMenu()	lcdConfigFactoryDefaults() readKey() lcdPrintAction() initDefaults()	NONE	lastMenuOp configChanged	MENUTIMEOUT	NONE
A_menu.pde	configSoftwareVersion	void	Display the software version	configMainMenu()	lcdConfigSoftwareVersion() readKey()	NONE	lastMenuOp	MENUTIMEOUT	NONE
A_menu.pde	getValidCharIndex	int	Returns the index for a specific char within validChar array	configAntennaName()	NONE	validChars[]	NONE	NONE	value: the char being searched
B_lcd.pde	lcdInitWithBanner	void	Init the display at program startup and prints the banner	setup()	NONE	LDCOLS LCDROWS	NONE	INITTTITLEDELAY VERSION	NONE
B_lcd.pde	lcdUpdate	void	Update LCD status during normal operation. Data on LCD is updated only if different from one displayed (to avoid "flashing")	setup() loop()	NONE	bandMeters[]	antennaName[]	ANTENNANAMELEN	newFreq: the frequency to be displayed newBand: the band to be displayed newAntenna: an pointer to antennaName[] to get the name forceUpdate: a flag to redraw entire LCD even if there was no change in data to be displayed
B_lcd.pde	lcdConfigMenu	void	Used for browsing config values. It updates the second row with specific config menu, while the first one reports a fixed value	configMainMenu() loop()	lcdCurrentConfigItem()	menuConfigItems[] LDCOLS	NONE	NONE	configMenuID: an index pointing to the menu to be displayed clearLCD: a flag to redraw entire LCD
B_lcd.pde	lcdConfigBaudRate	void	Manages Message for the config baud rate menu option	configBaudRate()	lcdCurrentConfigItem() lcdClearRow()	baudRates[]	NONE	NONE	baudRate: index for baudRates[] array to get the serial speed clearLCD: a flag to redraw entire LCD
B_lcd.pde	lcdConfigRtxAddress	void	Manages CI-V address LCD option	configRtxAddress()	lcdCurrentConfigItem() lcdClearRow()	NONE	NONE	NONE	address: the CIV address being configured clearLCD: a flag to redraw entire LCD
B_lcd.pde	lcdConfigIC735mode	void	Manages LCD messages when configuring the CI-V IC735 option	configIC735mode()	lcdCurrentConfigItem() lcdClearRow()	NONE	NONE	NONE	value: a boolean value indicating if the option is on or off clearLCD: a flag to redraw entire LCD
B_lcd.pde	lcdConfigBandToAntenna	void	Manages LCD message when configuring band to antenna association	configBandToAntenna()	lcdCurrentConfigItem() lcdClearRow()	bandMeters[]	antennaName[]	ANTENNANAMELEN	bandIndex: to a bandMeters[] array indicating the band being configured antennaIndex: to the antennaName[] array for the antenna bandScrolling: a flag indicating if scroll for bands or for antennas clearLCD: a flag to redraw the entire LCD
B_lcd.pde	lcdConfigAntennaName	void	Manages LCD message when configuring antenna names	configAntennaName()	lcdCurrentConfigItem() lcdClearRow()	NONE	antennaName[]	ANTENNANAMELEN	antennaIndex: to a antennaName[] array indicating the antenna being configured antScrollig: a flag indicating if scroll antennas or antenna names newName: the new antenna name to be printed charPosition: the char being edited clearLCD: a flag to redraw the entire LCD
B_lcd.pde	lcdConfigFactoryDefaults	void	Manages LCD message when resetting to default values	configFactoryDefaults()	lcdCurrentConfigItem() lcdClearRow()	NONE	NONE	NONE	NONE
B_lcd.pde	displayMessage	void	Display the warning message on LCD	loop()	lcdClearRow() readKey()	NONE	NONE	NONE	message: a byte value specifying several messages
B_lcd.pde	lcdCurrentConfigItem	void	Prints (after clearing) overwrite the first LCD menu with the config option being edited	lcdConfigMainMenu() lcdConfigBaudRate() lcdConfigRtxAddress() lcdConfigIC735mode() lcdConfigBandToAntenna() lcdConfigAntennaName() lcdConfigSoftwareVersion() lcdConfigFactoryDefaults()	lcdClearRow()	menuConfigItems[] LDCOLS	NONE	NONE	menuIndex: a byte value pointing to an item within the menuConfigItems[] array

B_lcd.pde	lcdClearRow	void	Clear a specific LCD row	lcdConfigMainMenu() lcdConfigBaudRate() lcdConfigRtxAddress() lcdConfig(C73mode()) lcdConfigBandToAntenna() lcdConfigAntennaName() lcdConfigSoftwareVersion() lcdConfigFactoryDefaults() displayMessage() lcdCurrentConfigItem()	NONE	LCDCOLS	NONE	NONE	rowID : the row to be cleared (0 or 1)
C_EEPROM.pde	readConfig	void	Read configuration from EEPROM	setup()	NONE	NONE	rtxAddr ic735mode baudRateIndex bandToAnt[] antennaName[]	NUMANTENNA ANTENNANAMELEN NUMBANDS	NONE
C_EEPROM.pde	saveConfig	void	Save the configuration to EEPROM	configMainMenu()	NONE	NONE	rtxAddr ic735mode baudRateIndex bandToAnt[] antennaName[]	NUMANTENNA ANTENNANAMELEN NUMBANDS	NONE
D_CIV.pde	readCIVData	unsigned int	Manage the process of reading frequency data from CIV	loop()	isFreqData() decodeFrequency()	NONE	NONE	CIVFREQLEN	civFreq : the current working frequency which is the default return value if nothing comes from CIV
D_CIV.pde	isFreqData	boolean	Returns true if data in the argument array is a valid frequency, otherwise false	readCIVData()	NONE	NONE	rtxAddr ic735mode	NONE	freqCIVData : an array containing last chars received from CIV
D_CIV.pde	decodeFrequency	unsigned int	Returns the frequency from a CIV buffer data	readCIVData()	NONE	NONE	ic735mode	NONE	defFreq : the default frequency to return. It's used to return the same value when the freqCIVData doesn't contain a valid frequency
E_io.pde	readKey	byte	returns a value based on which button was pressed. 0x01 UP, 0x02 DOWN, 0x04 ESC, 0x08 MENU, 0x10 MESH. It also repeats keypress when key is being pressed for more than a specified time	loop() configMainMenu() configBaudRare() configRtxAddress() config(C735mode()) configBandToAntenna() configAntennaName() configFactoryDefaults() configSoftwareVersion() displayMessage()	NONE	NONE	NONE	KEYPIN1 KEYPIN2 DEBOUNCETIME REPEATREQ STARTREPEAT	NONE
E_io.pde	switchAntenna	byte	The function output the pins with the proper value based on configuration. it returns the switched antenna (if any). Switching doesn't occur if radio is in tx	loop()	NONE	NONE	bandToAnt[]	XMITPIN DEBOUNCETIME NUMANTENNA OUT1 OUT2 OUT3	bandIndex : a pointer to bandToAnt[] specifying the current band upOrDown : if -1 then move to prev antenna (manual mode), +1 move to next (manual mode), 0xFF01 auto mode enabled – check the bandIndex, 0xFF00 manual mode enabled but no switching is required (no key was pressed) selAntenna : the currently selected antenna. This is the return value when no switching is done
E_io.pde	warningLed	void	This sub check for error/warnings and update the msg/manual LED	loop()	NONE	NONE	NONE	WARNING BLINKDURATION	message : a byte value specifying several messages
E_io.pde	initOutput	void	inits output pins at unit startup	setup()	NONE	NONE	NONE	OUT1 OUT2 OUT3 WARNING	NONE
F_miscFunctions.pde	decodeBand	byte	Returns the ham band a frequency belong to. If invalid ham band, it returns 0	loop()	NONE	bandLow[] bandHigh[]	NONE	NUMBANDS	freqItem : the frequency to be decoded to ham band
F_miscFunctions.pde	initDefaults	void	Init configurable items to their default values	setup() configFactoryDefaults()	NONE	NONE	rtxAddr ic735mode baudRateIndex notConfigured bandToAnt[] antennaName[]	NUMBANDS ANTENNANAMELEN	NONE
F_miscFunctions.pde	checkErrors	byte	Returns a byte value for the current error condition (if any). 0x00 all ok, 0x01 out of band, 0x02 no antenna for band, 0x04 No CIV data, 0x08 Manual mode enabled, 0x10 No Antenna Connected	loop()	NONE	NONE	NONE	CIVNODATA	bandIndex : a pointer to bandMeters antenna : the currently selected antenna curFreq : the current frequency automatic : true when auto mode is enabled