Front Panel

	Qty	Description	Mfgr	Model	Source	P/N	Notes
X	4	#6-32 x 3/8" flat head Phillips screw					Must be flat head to fit in case countersink, clear LED lens
X	4	#6 lockwasher					Lockwasher between inside of front panel and threaded hex spacer
X	4	#6-32 x 9/16" hex spacer, threaded, M-F	RAF Elect Hdwe	4535-632-AL-7	DigiKey	1772-1295-ND	Depending upon front panel assembly, might need additional length for clearance against LED lens
X	4	#6 lockwasher					Secures front panel PCB to threaded spacers
X	4	#6-32 nut					Secures front panel PCB to threaded spacers
X	1	8.3" x 1.625" x 1/16" acrylic panel					Red or smoke (neutral), label with pTouch or dry transfers. See drill pattern for mounting holes.
X	4	#2-56 x 1/4" pan head Phillips screw					Keep length to 1/4" to avoid interference with components on front panel PCB
X	1	Isolated 1/8" Stereo Jack	Tensility	54-00172	DigiKey	839-54-00172-ND	Opening is .432". Isolated jack must be used to avoid analog ground loops.
	2	USB chassis mount type "A"	FrontX	CPX-101-1	frontx.com		Mounting hole spacing is 1.18" which appears to be common with other cables (e.g. Amazon)
	4	M3x0.5 10mm flathead screw					Panhead is usually supplied with cables, countersink on front panel requires flathead
	4	M3 or #4 lockwasher					If using alternative cable with embedded nut, will probably not be able to use lockwasher
	4	M3x0.5 nut					If using alternative cable with embedded nut, these are not required
	1	SPST Toggle	NKK	S301F	Mouser	633-S301F	Opening is .492" with hole for locating tab. Switch has .250" quick disconnects.
X	4	LED in holder	Visual Comm Co	5100Hx	DigiKey	L1000x-ND	Opening is 1/4". The specified LEDs are designed to snap-fit into this hole. x=1/Red, 5/Green, 7/Yellow

Back Panel

	Qty	Description	Mfgr	Model	Source	P/N	Notes
X	4	DB9-Male	Amphenol	DE09P064TXLF	DigiKey	609-1524-ND	Substitute DB9F or DB9M as desired. Opening is standard.
X	4	DB9-Female	Amphenol	DE09S064TLF	DigiKey	609-1525-ND	
	1	DB25-Female PC Parallel Cable	StarTech	PLATE25F16LP	Amazon	https://a.co/d/3sbmyO9	Use "IBM PC Parallel Port", or self-fabricate. Opening is standard for DB25.
	1	DB25-Female	Amphenol	DB25S064TLF	DigiKey	609-1519-ND	Substitute DB25F or DB25M as desired. Opening is standard.
16	20	4-40 DB jackscrews	Keystone	7231	DigiKey	36-7231-ND	Jackscrew set includes #4 lockwasher and #4 nut
	2	USB chassis mount (optional)	FrontX	CPS-101-1	FrontX.com		Mounting hole spacing is 1.18" which appears to be common with other cables (e.g. Amazon)
X	1	Power inlet	Qualtek	719W-00/04	Mouser	562-719W-00/04	Also need power cord to wall outlet. You probably have such a cord in the parts bin!
X	1	5x20mm 1.5A 240V SloBlo fuse	Bussman	BK1/GMD-1.5-R	Mouser	504-BK1-GMD-1-5-R	Inlet holds fuse + one spare.
X	2	#4-40 x 3/8" flathead screw					
X	2	#4 lockwasher					
X	2	#4-40 nut					
X	1	non-conducting sub-panel, 3.3" x 2.3" x 1/8"					Fabricate from non-conducting plastic such as ABS or acrylic
X	3	Black RCA bulkhead jacks	Switchcraft	BPJF01AUX	Mouser	502-BPJF01AUX	For H8-5 tape in/out/motor. Drill size is 0.25"
X	2	Red RCA bulkhead jacks	Switchcraft	BPJF02AUX	Mouser	502-BPJF02AUX	For HA-8-3 audio/video. Drill size is 0.25". Insulator color is optional.
X	1	Green RCA bulkhead jack	Switchcraft	BPJF06AU	Mouser	502-BPJF06AU	For HA-8-3 video. Drill size is 0.25". Insulator color is optional.
X	1	Blue RCA bulkhead jack	Switchcraft	BPJF05	Mouser	502-BPJF05	For HA-8-3 video. Drill size is 0.25". Insulator color is optional.
X	1	White RCA bulkhead jack	Switchcraft	BPJF03AUX	Mouser	502-BPJF03AUX	For HA-8-3 video. Drill size is 0.25". Insulator color is optional.
X	2	1/8" stereo jack	Tensility	54-00081	DigiKey	839-1411-ND	For HA-8-3 and HA-8-2 audio. Drill size is 0.365" (3/8" OK)
X	4	#4-40 x 3/8" pan head Phillips					
X	4	#4 lockwasher					
X	4	#4-40 nut					
2	4	34-pin IDC chassis mount header	Assman WSW	AWH 34G-E202-IDC	DigiKey	HHPL34H-ND	Can run ribbon cable through hole without chassis mount header. :-(
X	1	40-pin IDC chassis mount header	Assman WSW	AWH 40G-E202-IDC	DigiKey	HHPL40H-ND	Can run ribbon cable through hole without chassis mount header. :-(
6	10	#4-40 x 1/2" pan head Phillips					
6	10	#4 lockwasher					
6	10	#4-40 nut					

Side Panel

	Qty	Description	Mfgr	Model	Source	P/N	Notes
	1	80mm fan	Noctua	NF-A8-FLX	Amazon		3-pin, 12v fan, ultra quiet, includes anti-vibration mounts and extension power cable
	4	anti-vibration mounts	Noctua				Included with fan
X	1	#6 solder log					For connection to chassis ground - can also use #6/8 crimp ring terminal
X	1	#6 lockwasher					
X	1	#6-32 nut					

Side Panel

	Qty	Description	Mfr	Part #	Vendor	Vendor Part #	Notes
	1	40mm fan	Noctua	NF-A4x20-FLX	Amazon		3-pin, 12v fan, ultra quiet, includes extension power cable
	4	#6-32 x 1-1/4 pan head Phillips					Can mount with two diagonal screws instead of four corners.
	4	#6 flat washer					Can mount with two diagonal screws instead of four corners.
	4	#6 lockwasher					Can mount with two diagonal screws instead of four corners.
	4	#6-32 nut					Can mount with two diagonal screws instead of four corners.
X	6	#6-32 x 1/2" M-F nylon standoff	Keystone	4816	DigiKey	36-4816-ND	If using Heath or Trionyx backplanes, you must insulate the standoffs
X	6	#6-32 x 3/8" binder head nylon screw	Essentra Comp	010632B037	DigiKey	RPC7766-ND	
X	6	#6-32 x 1/4" F-F nylon standoff	Keystone	1903A	DigiKey	36-1903A-ND	Use 1/4" standoff as a nut - can be easily finger tightened
X	6	#6-32 x 5/16" pan head Phillips screw					For Collado backplane, can use metal hardware with fiber washer behind backplane
X	6	#6 lockwasher					
X	6	#6-32 x 3/8" hex standoff, M-F	RAF Elect Hdwe	4573-632-AL	DigiKey	1772-2280-ND	
X	6	#6 fiber washer	Keystone	3370	DigiKey	36-3370-ND	Fiber washer prevents interference between hex standoff and 3.3v on ATX connector
X	6	#6-32 x 1/4" F-F nylon standoff	Keystone	1903A	DigiKey	36-1903A-ND	Use 1/4" standoff as a nut - can be easily finger tightened
	1	45 ohm Heath speaker	Heath	401-163	eBay/SEBHC		45-ohm speaker, often found on eBay. Some SEBHC members have inventory.
			DBUnlimited	SP570445-4	Mouser	497-SP570445-4	Specifications appear similar - this speaker has not been tested in the case
X	3	#6-32 x 3/8" pan head Phillips					Shaded parts together form a reasonable facsimile of the shoulder nut used by Heath for speaker.
X	3	#6 x 1/16" nylon spacer	Bivar Inc	9905-062	DigiKey	492-1101-ND	Minor diameter = 1/4" x 1/16", major diameter = 3/8"
X	3	#6 flat washer, 3/8" OD					
X	3	#6 lockwasher					
X	3	#6-32 nut					

Bottom

	Qty	Description	Mfr	Part #	Vendor	Vendor Part #	Notes
		The case is drilled for two different power supply scenarios.	Terry		Norberto	Encapsulated	
	1	24v CT 30va transformer	Hammond	187D24	DigiKey	HM2130-ND	With .187 disconnects or solder lugs. Case is drilled for this transformer in one location.
	2	#8-32 x 3/8" pan head Phillips					
	2	#8 lockwasher					
	2	#8-32 nut					
	1	9v 100w power supply	XPPower	ECM100-US09	DigiKey	1470-1225-ND	Case is drilled for this 2.5" x 4.5" PCB in one location. Uses Molex KK396 connectors.
	4	#6-32 x 3/4" pan head Phillips					
	4	#6 x 1/4" unthreaded nylon spacer					
	8	#6 lockwasher					Powdercoat is masked on corner mounting location nearest power supply ground lug
	8	#6-32 small pattern nut					Use small pattern #6-32 nut (1/4" hex) to avoid interference with PCB components
	1	28v CT 56va transformer	Jameco	149797	Jameco	149797	With wire leads. Case is drilled for this transformer in two different mounting locations.
	2	#8-32 x 3/8" pan head Phillips					
	2	#8 lockwasher					
	2	#8-32 nut					
	1	7.5v 75w power supply	Meanwell	HRP-75-7.5	Jameco	2101041	Case is drilled for this 3.75" x 5" PCB in two different mounting locations. Uses screw terminals.
	2	#4-40 x 3/8" screw					Powdercoat is masked on corner mounting location to provide good frame ground
	2	#4-40 lockwasher					
	2	#4-40 nut					
	1	Encapsulated +9v Supply, 60 watt	PowerX	ECE60US09-S	DigiKey	1470-2599-ND	Case is not pre-drilled for this supply. Uses screw terminals.
	1	Encapsulated +/-15v Supply, 30 wattr	PowerX	ECL30UD02-S	DigiKey	1470-1205-ND	Case is not pre-drilled for this supply. Uses screw terminals.
	4	#6-32 x 3/8" pan head Phillips					
	4	#6 lockwasher					
	4	#6 small pattern nut					
X	4	self-adhesive foot, 0.88" diameter	3M	SJ-5009	DigiKey	SJ5009-0-ND	

Category	Qty	Description	Manufacturer	Part Number	Distributor	Distributor Part Number	Notes
Electrical	3	16-22ga (red) .250" female disconnect					for AC power entry, or solder
	2	16-22ga (red) .250" female disconnect					for front panel AC switch, or solder
	2	3-position WAGO lever-lock	WAGO	221-413	DigiKey	2946-221-413/VE00-2500-ND	for hot, neutral
	2	3-position WAGO mounting pad	WAGO	221-513	DigiKey	2946-221-513-ND	for neat mounting of WAGO splice blocks
	2	16-22ga (red) .187 female disconnect					for transformer primary, or solder
	3	16-22ga (red) .187 female disconnect					for transformer secondary, or solder
	1	3-position Molex connector shell	Molex	09-50-3031	DigiKey	WM2101-ND	power supply AC input
	2	Molex crimp terminal	Molex	08-50-0106		WM2300-ND	
	1	12-position Molex connector shell	Molex	09-50-8121		23-0009508121-ND	power supply DC output
	5	Molex crimp terminal	Molex	08-50-0106		WM2300-ND	+8v, GND connections use 2x16ga in parallel
	1	16-22ga (red) #6 or #8 spade/ring terminal	PS chassis ground				
		All line voltage wire to be 18ga, UL listed type MTW/1015, 600v, 105C					Do not use unlisted wire like automotive primary wire!
		18 ga wire, white	AC neutral				Maintain line voltage color coding - black/hot, white/neutral, green/ground
		18ga wire, black	AC hot				
		18ga wire, green	chassis ground				
		Low voltage wire can be as above or UL 1007/1430, 300v, 105C					Do not use unlisted wire like automotive primary wire!
		18 ga wire, brown	24VAC				
		18 ga wire, yellow	24VAC CT				
		18 ga wire, red	+9v DC				doubled parallel conductors for +9v and return
		18 ga wire, white	DC return				
	(Optional)	Molex Mini-Ft Jr ATX 24-pin plug	Amphenol-ICC	10127815-24LF	DigiKey	609-4837-ND	Use ATX connector on Collado backplane to feed +8v
	4	Mini-Fit Jr female crimp terminal	Amphenol-ICC	10127817-221LF	DigiKey	609-4847-1-ND	
		18 ga wire, red, 300v UL1007/1430	+9v DC				doubled parallel conductors for +9v and return
		18 ga wire, white or black, 300v UL1007/1430	DC return				
	1	Molex Mini-Fit JR ATX 24-pin plug	Amphenol-ICC	10127815-24LF	DigiKey	609-4837-ND	Use ATX connector on Collado backplane to feed all voltages (+8,+18,-18)
	8	Mini-Fit Jr female crimp terminal	Amphenol-ICC	10127817-221LF	DigiKey	609-4847-1-ND	
		16ga wire, red	+8v DC				16ga wire recommended by MeanWell for HRP-75-7.5 power supply
		16ga wire, black or white	DC return				16ga wire size may exceed crimping capacity of ATX plug terminals

Expected DC load is < 5A
18ga MTW ampacity = 7A @ 75C
16ga MTW ampacity = 10A @ 75C
14ga MTW ampacity = 15A @ 75C
per NFPA 79 2018 Table 12.5.1