UNIVERSAL hpp
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Quick reference

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Chapter 1 - Hardware

The controller needs a single 24VDC power supply. Please be sure that the power supply can support a 2A current.

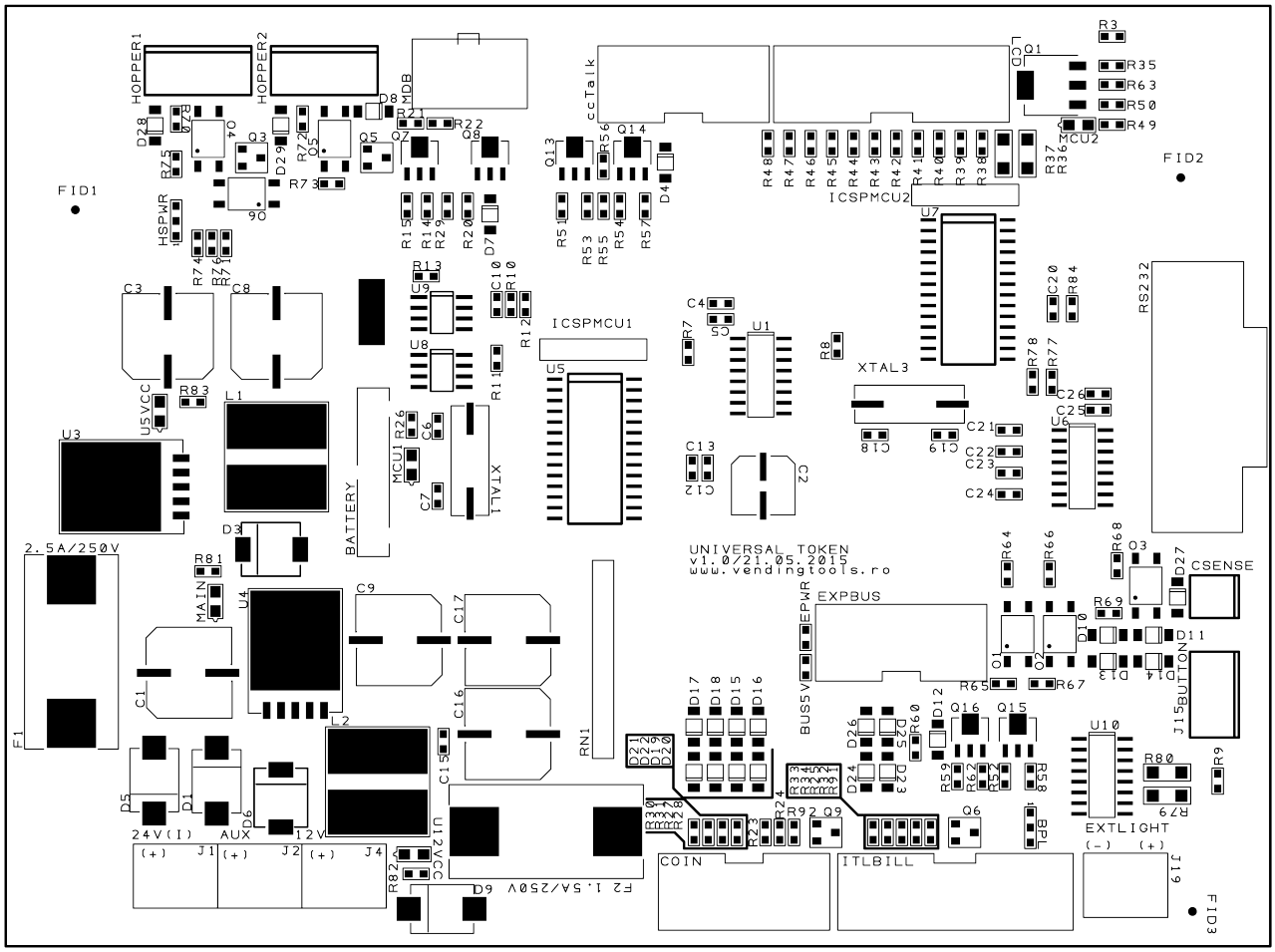

Figure #1 - Board outlines

Connectors description:

24V(I) – 24VDC power input.
AUX – 24VDC protected power output.
12V – 12VDC protected power output (do not exceed 1.5A).
COIN – 12V parallel coin connector.
ITLBILL – Innovative Technologies parallel bill validators connector.
EXTLIGHT – LED output for product pocket light. This light will blink at the end of any transaction.
BUTTON – external 3 buttons (BT1, BT2, BT3) for operating anc configuring.
CSENSE – external micro-switch. In penny press mode, you need to connect a NO micro-switch on “CSENSE” connector to avoid blank token jams if a customer does not turn the wheel after the token was dispensed. In this situation, on the next

customer, the controller will skip token delivery and will display the message to turn the wheel.
RS232 – RS232 port, not used, reserved for further applications.
LCD – display port.
ccTalk – ccTalk hoppers connector. You can connect up to 2 hoppers (address 3 and address 4).
MDB – Connector for MDB payment systems (bill validators and coin acceptors, including changers).
HOPPER1 and **HOPPER2** – dedicated port for 2 HIMECS hoppers

ccTalk connector pinout:

PIN	Description
1	Data
2	N/C
3	N/C
4	GND
5	N/C
6	N/C
7	24VDC
8	GND
9	N/C
10	24VDC

Chapter 2 – Settings menu

The settings menu is activated keeping BT3 pressed for 2 seconds. After the first option is displayed, each short press of the BT3 will move to the next option. To change settings for the selected option, use BT1 or BT2. To exit from the settings menu, navigate between menu options (using BT3), until the machine will display the following message: “Button 2 to exit”. At this moment, pressing BT2 will force the controller to save the new settings and to return to the main screen. When you are activating or deactivating hoppers, the controller should be restarted to enable modifications.

Table no.1 – Settings menu options, starting with version 09.09.2015

Message	Option	Function
“Working mode”	“change machine”	The machine will work in the “change machine” mode. The active hoppers should also be configured with “change machine” mode.
	“pre-pressed”	The machine will work as a token dispenser or as a souvenir machine, with pre-pressed medals. The active hoppers should be configured with “selling mode”.
	“penny press”	The machine will work as a penny press machine. The active hoppers should be configured with “selling mode”. In penny press mode, you need to connect a NO micro-switch on “CSENSE” connector to avoid blank token jams if a customer does not turn the wheel after the token was dispensed. In this situation, on the next customer, the controller will skip token delivery and will display the message to turn the wheel.
“MDB bill”	“inactive”	No MDB bill validator is connected to the controller
	“active”	An MDB bill validator is connected to the controller
“MDB coin”	“inactive”	No MDB coin acceptor is connected to the controller
	“acceptor w/o chg”	An MDB coin acceptor is connected to the controller, and the coin acceptor don't have changer functions
	“acceptor w/chg”	An MDB coin acceptor is connected to the controller and the coin acceptor has also changer functions
“PHopper #1 mode”	“inactive”	The parallel hopper #1 is not connected to the controller
	“selling mode”	The parallel hopper #1 is connected to the controller and will work as a token dispenser or pre-pressed/medals dispenser
	“change mode”	The parallel hopper #1 is connected to the controller and will work in change machine mode. The hoppers' modes cannot be mixed. All active hoppers should work in the same mode.
“PHopper #1 value”		Use BT1 and BT2 to adjust the coin/token/medal price for the first parallel hopper
“PHopper #1 stock”		Use BT1 and BT2 to adjust the coin/token/medal stock for the first parallel hopper. Adjust this value on refilling to avoid taking money from the customers when the hopper is empty. As a security measure, if the machine was unable to finish a transaction, the machine will go “out of order” or will disable the empty hopper in 2 hoppers configuration mode.
“PHopper #2 mode”	“inactive”	The parallel hopper #2 is not connected to the controller
	“selling mode”	The parallel hopper #2 is connected to the controller and will work as a token dispenser or pre-pressed/medals dispenser

Message	Option	Function
	“change mode”	The parallel hopper #2 is connected to the controller and will work in change machine mode. The hoppers' modes cannot be mixed. All active hoppers should work in the same mode.
“PHopper #2 value”		Use BT1 and BT2 to adjust the coin/token/medal price for the second parallel hopper
“PHopper #2 stock”		Use BT1 and BT2 to adjust the coin/token/medal stock for the second parallel hopper. Adjust this value on refilling to avoid taking money from the customers when the hopper is empty. As a security measure, if the machine was unable to finish a transaction, the machine will go “out of order” or will disable the empty hopper in 2 hoppers configuration mode.
“CHopper #1 mode”	“inactive”	The ccTalk hopper #1 (ccTalk address 3) is not connected to the controller
	“selling mode”	The ccTalk hopper #1 is connected to the controller and will work as a token dispenser or pre-pressed/medals dispenser
	“change mode”	The ccTalk hopper #1 is connected to the controller and will work in change machine mode. The hoppers' modes cannot be mixed. All active hoppers should work in the same mode.
“CHopper #1 value”		Use BT1 and BT2 to adjust the coin/token/medal price for the first ccTalk hopper
“CHopper #1 stock”		Use BT1 and BT2 to adjust the coin/token/medal stock for the first ccTalk hopper. Adjust this value on refilling to avoid taking money from the customers when the hopper is empty. As a security measure, if the machine was unable to finish a transaction, the machine will go “out of order” or will disable the empty hopper in 2 hoppers configuration mode.
“CHopper #2 mode”	“inactive”	The ccTalk hopper #2 (ccTalk address 4) is not connected to the controller
	“selling mode”	The ccTalk hopper #2 is connected to the controller and will work as a token dispenser or pre-pressed/medals dispenser
	“change mode”	The ccTalk hopper #2 is connected to the controller and will work in change machine mode. The hoppers' modes cannot be mixed. All active hoppers should work in the same mode.
“CHopper #2 value”		Use BT1 and BT2 to adjust the coin/token/medal price for the second ccTalk hopper
“CHopper #2 stock”		Use BT1 and BT2 to adjust the coin/token/medal stock for the second ccTalk hopper. Adjust this value on refilling to avoid taking money from the customers when the hopper is empty. As a security measure, if the machine was unable to finish a transaction, the machine will go “out of order” or will disable the empty hopper in 2 hoppers configuration mode.
“Parallel coin”	“inactive”	No parallel coin acceptor connected to the controller
	“active”	There is a parallel coin acceptor connected to the controller
“Parallel C1 val.”		The value for parallel coin acceptor – channel #1
“Parallel C2 val.”		The value for parallel coin acceptor – channel #2
“Parallel C3 val.”		The value for parallel coin acceptor – channel #3 (channel #3 of the coin acceptor is shared with ITL bill validator channel #4)
“Parallel C4 val.”		The value for parallel coin acceptor – channel #4 (channel #4 of the coin acceptor is shared with ITL bill validator channel

Message	Option	Function
		#3)
“Parallel C5 val.”		The value for parallel coin acceptor – channel #5 (channel #5 of the coin acceptor is shared with ITL bill validator channel #2)
“Parallel C6 val.”		The value for parallel coin acceptor – channel #6 (channel #6 of the coin acceptor is shared with ITL bill validator channel #1)
“Parallel bill”	“inactive”	No parallel bill validator connected to the controller. NOTE!!! Connect only Innovative Technologies parallel bill validators on this port”.
	“active”	There is an ITL bill validator connected to the controller.
“Parallel B1 val.”		The value for parallel ITL bill validator – channel #1 (channel #1 of the ITL bill validator is shared with parallel coin acceptor channel #6)
“Parallel B2 val.”		The value for parallel ITL bill validator – channel #2 (channel #2 of the ITL bill validator is shared with parallel coin acceptor channel #5)
“Parallel B3 val.”		The value for parallel ITL bill validator – channel #3 (channel #3 of the ITL bill validator is shared with parallel coin acceptor channel #4)
“Parallel B4 val.”		The value for parallel ITL bill validator – channel #4 (channel #4 of the ITL bill validator is shared with parallel coin acceptor channel #3)
“Decimal places”	The display will show “111.11”	Using BT1 or BT2 you can move the decimal point to the desired position.
“Hopper type”	“normal mode”	This option can be used for ccTalk hoppers to select non-cipher mode. Use this option for Suzo Happ, Azkoyen or Curenza h2 hoppers. Set our hopper with non-encrypted communication mode.
	“cipher mode”	This option can be used for ccTalk hoppers to select cipher mode. Use this option for Money Controls universal hoppers. Set you hopper with non-encrypted communication mode.
“Total cash”		This is a non-volatile and non-erasable counter of total cash since the controller's last firmware upgrade. This counter will be erased on firmware upgrades.
“Total sales”		This is a non-volatile and non-erasable counter of total sales since the controller's last firmware upgrade. This counter will be erased on firmware upgrades.
“Partial cash”		This is a non-volatile, but erasable counter for cash. Can be erased by pressing BT2
“Partial sales”		This is a non-volatile, but erasable counter for sales. Can be erased by pressing BT2
“Button 2 to exit”		Pressing BT2 when this message is displayed on the display, will save the settings and return to the working mode. When you are activating or deactivating hoppers, the controller should be restarted to enable modifications.

Notes: