

MultiCOM 392 I/O Expansion Card



User manual

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INTRODUCTION

Thank you for choosing our product.

The accessories described in this manual are of the highest quality, carefully designed and built in order to ensure excellent performance.

This manual contains detailed instructions on how to install and use the product.

This manual must be stored in a safe place and <u>CONSULTED BEFORE USING THE DEVICE</u> for proper usage instructions as well as maximum performance from the device itself.

NOTE: Some images contained in this document are for informational purposes only and may not faithfully demonstrate the parts of the product they represent.

Symbols used in this manual:



SAFETY

This part of the manual contains SAFETY precautions that must be followed scrupulously.

Ensure that the connectors subjected to high voltages are correctly isolated.

- The device has been designed for professional use and is therefore not suitable for use in the home.
- The device has been designed to operate only in closed environments. It should be installed in rooms where there are no inflammable liquids, gas or other harmful substances.
- Take care that no water or liquids and/or foreign bodies fall into the device.
- In the event of a fault and/or impaired operation of the device, do not attempt to repair it but contact the authorized service centre.
- The device must be used exclusively for the purpose for which it was designed. Any other use is to be considered improper and as such dangerous. The manufacturer declines all responsibility for damage caused by improper, wrong and unreasonable use.

ENVIRONMENTAL PROTECTION

Our company devotes abundant resources to analysing environmental aspects in the development of its products. All our products pursue the objectives defined in the environmental management system developed by the company in compliance with applicable standards.

Hazardous materials such as CFCs, HCFCs or asbestos have not been used in this product.

When evaluating packaging, the choice of material has been made favouring recyclable materials. Please separate the different material of which the packaging is made and dispose of all material in compliance with applicable standards in the country in which the product is used.

DISPOSING OF THE PRODUCT

The device contains internal material which (in case of dismantling/disposal) are considered TOXIC, such as electronic circuit boards. Treat these materials according to the laws in force, contacting qualified centres. Proper disposal contributes to respect for the environment and human health.

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DESCRIPTION

MultiCOM 392 is a device that, inserted in the proper slot of the UPS, provides 8 configurable dry contact outputs and up to four inputs for the control and monitoring of the UPS.



The device is compatible with the following UPS series:

- MST / MSM / MCT / MCM
- C1T/C1M
- GMI
- S3T / S3M / S3U
- MPW



Refer to the code on the UPS data plate to trace back to the UPS model you own (ex. P/N: DS3TK10...).



INPUTS

The four inputs, IN1 / IN2 / IN3 / SWMB, can be configurable or not according to different UPS series. Check the features that are compatible and the default configuration in the chapter dedicated to your UPS model.



Some UPS may not handle all inputs.

OUTPUTS

For all UPS series, each of the eight outputs (OUT1 – OUT8) can be associated with an event such as an operating state or a UPS alarm condition. You can also configure the function logic of the relay and set a delay for the event signalling. The outputs can be configured via the configuration software of the UPS.



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Check the default configuration of the outputs in the chapter dedicated to your UPS model.

In order to know the events that can be associated with the outputs, refer to the configuration software of the UPS.

Maximum ratings for each output	
Maximun load current	1 A
Maximun voltage AC	25 V _{ac}
Maximun voltage DC	$30 V_{dc}$

SERIES MST / MSM / MCT / MCM



For series MST / MSM / MCT / MCM, MultiCOM 392 is compatible only if the UPS is provided with the interface board mounted **B0056 Rev.01C / B0056 Rev.02C or higher**.

JUMPER SETTINGS ON INTERFACE BOARD OF THE UPS





All the operations listed below must be carried out while the UPS is completely disconnected from the mains and from the batteries and with all disconnectors and fuse holders open.



Refer to the relative user manual to turn off the UPS. Then wait about 15 minutes to allow the internal capacitors to discharge.

- Remove the top UPS panel in order to access to the interface board of the UPS.
- Set the jumpers JP3 and JP4 of the interface board referring to the following table and image.
- Replace the top panel of the UPS.
- Perform the safety tests (see following pages).

JP1	OPEN	
JP2	OPEN	
JP3	CLOSED (DEFAULT) OPEN	for using the REMOTE OFF function through the AS400 port of the UPS for using the REMOTE OFF function through IN2 of the MultiCOM 392
JP4	OPEN	
JP6	CLOSED	



SAFETY TESTS



The tests described below should be performed after the UPS is completely closed with the wrapping and all the panels. In addition, all operations must be carried out with the UPS off and completely disconnected from the mains, batteries and any other equipment.

ONLY BE CARRIED OUT BY <u>PERSONNEL WHO ARE</u> QUALIFIED AND PROPERLY TRAINED

Equipment required

- 1. Earth resistance meter, fitted with RS28 ELEKTROTECHN Laboratorium electrodes (or similar).
- 2. UH28 .. ELEKTROTECHN LABORATORIUM strength test instrument complete with high voltage rectifier BRIDGE adapter (or similar).

Measurement of contact resistance to earth (CRITICAL FOR SAFETY)

Connect one electrode from the "RS 28" generator to the earth terminal. Inject the test current through the other electrode (tip) in all the different parts that make up the <u>metal frame</u>. In the test on painted frames, before the test, pierce the painted layer with the tip.

The test is passed if all the metal parts of the equipment are earthed.

The earth resistance reading on the instrument should be ≤ 0.1 Ohm.

Strength test (CRITICAL FOR SAFETY)

With the UPS off and disconnected from the mains, batteries and any other equipment, short circuit the mains input terminals (L1, L2, L3, N) (and bypass input terminals if present).

Close all the disconnectors SWIN, SWOUT, SWBATT (if present on the UPS), and SWMB and SWBYP (if present). With the machine for the strength test and relative rectifier bridge, set at 1500Vac with a 10mA limit, apply a voltage of about 2100Vdc for at least 2 seconds between the short circuit created beforehand and an earth terminal.

The test is passed if the test equipment gives no indication of an anomaly.

Remove the short circuit between the phases and the neutral. Open all the disconnectors.

JUMPER SETTINGS AND INSTALLATION OF THE MULTICOM 392

Set the jumper of the MultiCOM 392 referring to the following table and image.

JP1	OPEN (DEFAULT) CLOSED	for using the REMOTE OFF function through the AS400 port of the UPS for using the REMOTE OFF function through IN2 of the MultiCOM 392
JP2	OPEN	
JP3	OPEN	
JP4	OPEN	
JP5	OPEN	





MultiCOM 392 must be inserted only in the UPS slot dedicated to the contacts boards: "AUX RELAY SLOT".

- Remove the cover of the UPS slot dedicated to the contacts boards (AUX RELAY SLOT) by removing the two retaining screws.
- Wire appropriately MultiCOM 392.
- Insert MultiCOM 392 in the slot dedicated to the contacts card (AUX RELAY SLOT).
- Fix the cover provided with the MultiCOM 392 using the screws previously removed.



CONFIGURATION

1

MultiCOM 392 can be configured using the configuration software of the UPS.

Before setting the input/output, you must select "Multicom 392 [8out]" for I/O card model.

File Connection View Commands Password About			97 97		,
🗞 Basic 🥒 Advanced 🤱 Bypass 🔋 Battery 🚱 Battery Te	est 🔌 External I-O 🕊	Teles	ervice		
I/O card model O Multicom 382 / 384 [4 out] O Multicom 392 [8 out]					
Input contact	Output contact Output mode		Logic	Dela	iy (s)
Input 3 mode Load on bypass V	6				1000
	1 Battery low	\sim	Normal OFF ~	0	÷
Battery charger off Disable bypass	Battery low Battery working	~	Normal OFF ~	0	• •
Battery charger off Disable bypass Delay (ms) 480	1 Battery low 2 Battery working 3 Inverter locked	~ ~	Normal OFF ~	0	•
Battery charger off Disable bypass Delay (ms)	1 Battery low 2 Battery working 3 Inverter locked 4 Load on bypass	> > >	Normal OFF ~ Normal OFF ~ Normal OFF ~		
Battery charger off Disable bypass Delay (ms)	1 Battery low 2 Battery working 3 Inverter locked 4 Load on bypass 5 UPS OK	> > > > >	Normal OFF ~ Normal OFF ~ Normal OFF ~ Normal OFF ~		
Battery charger off Disable bypass Delay (ms)	1 Battery low 2 Battery working 3 Inverter locked 4 Load on bypass 5 UPS OK 6 Battery fail	> > > > >	Normal OFF ~ Normal OFF ~ Normal OFF ~ Normal OFF ~ Normal OFF ~		
Battery charger off Disable bypass Delay (ms)	1 Battery low 2 Battery working 3 Inverter locked 4 Load on bypass 5 UPS OK 6 Battery fail 7 Overload	> > > > > > > >	Normal OFF ~ Normal OFF ~ Normal OFF ~ Normal OFF ~ Normal OFF ~ Normal OFF ~		

INPUT	DESCRIPTION
IN1	REMOTE ON: By closing the contact for at least 3 seconds, the UPS will switch on.
IN2	REMOTE OFF: By closing the contact, the UPS will immediately switch off. This feature is disabled by default. To use it you must disable the corresponding feature available on the AS400 port of the UPS (see "Jumper settings on interface board of the UPS" and "Jumper settings and installation of the MultiCOM 392").
IN3	CONFIGURABLE INPUT : use the UPS configuration software to select the function that has to be associated with IN3 (Input 3 mode default: Load on bypass).
SWMB	Manual bypass auxiliary contact (for the management of an auxiliary contact of a possible remote bypass). The auxiliary contact must be anticipated type, normally open.



The inputs IN1 / IN2 / IN3 have to be used as alternative to the corresponding inputs on the AS400 port of the UPS.



For each of the eight outputs can be selected: the associated event (Output mode), the operating logic of the relay (Logic) and a delay (in seconds) in reporting the event.

OUTPUT CONTACTS DEFAULT CONFIGURATION			
Output	Output mode	Logic	Delay (s)
OUT 1	Battery low	Normal OFF	0
OUT 2	Battery working	Normal OFF	0
OUT 3	Inverter locked	Normal OFF	0
OUT 4	Load on bypass	Normal OFF	0
OUT 5	UPS OK	Normal OFF	0
OUT 6	Battery fail	Normal OFF	0
OUT 7	Overload	Normal OFF	0
OUT 8	Any alarm	Normal OFF	0

EXAMPLE 1 - if you set an output in this way:

Output mode	Logic	Delay (s)
Battery working	Normal OFF	0

the relative contact will be:

UPS working by mains	UPS in battery working mode
NC	NC
NO	NO
C	C

EXAMPLE 2 - if you set an output in this way:

Output mode	Logic	Delay (s)
Battery working	Normal ON	10

the relative contact will be:

UPS working by mains	UPS in battery working mode for at least 10 seconds
NC	NC
NO	NO
C	C

SERIES C1T / C1M

JUMPER SETTINGS AND INSTALLATION

Set the jumpers of the MultiCOM 392 referring to the following table and image.

JP1	CLOSED
JP2	OPEN
JP3	OPEN
JP4	OPEN
JP5	OPEN



- C1T / C1M -





MultiCOM 392 must be inserted only in the CSS slot dedicated to the contacts boards: "AUX RELAY SLOT".

- Remove the cover of the CSS slot dedicated to the contacts boards (AUX RELAY SLOT) by removing the two retaining . screws.
- Wire appropriately MultiCOM 392.
- Insert MultiCOM 392 in the slot dedicated to the contacts card (AUX RELAY SLOT).
- Fix the cover provided with the MultiCOM 392 using the screws previously removed. .



CONFIGURATION

1

MultiCOM 392 can be configured using the configuration software of the CSS.

Before setting the input/output, you must select "Multicom 392 [8out]" for I/O card model.

File Connection View Commands Password About					
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🖕 Basic 🥒 Advanced 🤹 Bypass 🔋 Battery 🚱 Battery Test	External I-O 🖉	Telese	rvice		
I/O card model Multicom 382 / 384 [4 out] Multicom 392 [8 out]					
Input contact Output	ut contact Output mode		Logic	De	elay (s)
Input 3 mode Load on bypass V 1	Battery low	~	Normal OFF	~ 0)
Input 3 mode Load on bypass 1 Battery charger off Disable bypass 2	Battery low Battery working	~	Normal OFF	~ 0 ~ 0) •
Input 3 mode Load on bypass 1 Battery charger off Disable bypass 2 Delay (ms) 480 3	Battery low Battery working Inverter locked	~ ~	Normal OFF	~ 0 ~ 0 ~ 0	
Input 3 mode Load on bypass 1 Battery charger off Disable bypass 2 Delay (ms) 480 3 4 4	Battery low Battery working Inverter locked Load on bypass	~ ~ ~	Normal OFF	> 0 > 0 > 0	
Input 3 mode Load on bypass 1 Battery charger off Disable bypass 2 Delay (ms) 480 3 4 5	Battery low Battery working Inverter locked Load on bypass UPS OK	> > > >	Normal OFF · · · · · · · · · · · · · · · · · ·		
Input 3 mode Load on bypass 1 Battery charger off Disable bypass 2 Delay (ms) 480 3 4 5 6	Battery low Battery working Inverter locked Load on bypass UPS OK Battery fail	> > > >	Normal OFF · · · · · · · · · · · · · · · · · ·		
Input 3 mode Load on bypass 1 Battery charger off Disable bypass 2 Delay (ms) 480 3 4 5 6 7	Battery low Battery working Inverter locked Load on bypass UPS OK Battery fail Overload	 <	Normal OFF · · · · · · · · · · · · · · · · · ·		

INPUT	DESCRIPTION
IN1	REMOTE ON: By closing the contact for at least 3 seconds, the UPS will switch on.
IN2	REMOTE OFF: By closing the contact, the UPS will immediately switch off.
IN3	CONFIGURABLE INPUT : use the UPS configuration software to select the function that has to be associated with IN3 (Input 3 mode default: Load on bypass).
SWMB	 Manual bypass auxiliary contact (for the management of an auxiliary contact of a possible remote bypass). The auxiliary contact must be anticipated type, normally open. The transition takes place regardless of the status of the bypass line and of the bypass/inverter sync.



The inputs IN1 / IN2 / IN3 have to be used as alternative to the corresponding inputs on the AS400 port of the UPS.

- C1T / C1M -



For each of the eight outputs can be selected: the associated event (Output mode), the operating logic of the relay (Logic) and a delay (in seconds) in reporting the event.

OUTPUT CONTACTS DEFAULT CONFIGURATION			
Output	Output mode	Logic	Delay (s)
OUT 1	Battery low	Normal OFF	0
OUT 2	Battery working	Normal OFF	0
OUT 3	Inverter locked	Normal OFF	0
OUT 4	Load on bypass	Normal OFF	0
OUT 5	UPS OK	Normal OFF	0
OUT 6	Battery fail	Normal OFF	0
OUT 7	Overload	Normal OFF	0
OUT 8	Any alarm	Normal OFF	0

EXAMPLE 1 - if you set an output in this way:

Output mode	Logic	Delay (s)
Battery working	Normal OFF	0

the relative contact will be:

UPS working by mains	UPS in battery working mode
NC	NC
NO	NO
C	C

EXAMPLE 2 - if you set an output in this way:

Output mode	Logic	Delay (s)
Battery working	Normal ON	10

the relative contact will be:

UPS working by mains	UPS in battery working mode for at least 10 seconds
NC NO C	

SERIES GMI

JUMPER SETTINGS AND INSTALLATION

Set the jumpers of the MultiCOM 392 referring to the following table and image.

JP1	OPEN
JP2	OPEN
JP3	OPEN
JP4	OPEN
JP5	OPEN



- GMI -



MultiCOM 392 must be inserted only in the UPS slot dedicated to the contacts boards: "AUX RELAY SLOT".

- Remove the cover of the UPS slot dedicated to the contacts boards (AUX RELAY SLOT) by removing the two retaining screws.
- Wire appropriately MultiCOM 392.
- Insert MultiCOM 392 in the slot dedicated to the contacts card (AUX RELAY SLOT).
- Fix the cover provided with the MultiCOM 392 using the screws previously removed.



CONFIGURATION

1

MultiCOM 392 can be configured using the configuration software of the UPS.

Before setting the input/output, you must select "Multicom 392 [8out]" for I/O card model.

Configurator - Version 2.0.2			00		
ile Connection View Commands Password About					
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🖕 Basic 🥒 Advanced 🛭 🕄 Bypass 🔋 Battery 🚦	Battery Test 🔌 External I-O 💿	Teleservio	e		
I/O card model Multicom 382 / 384 [4 out] Multicom 392 [8 out]					
Input contact	Output contact Output mode		Logic	[Delay (s)
Input 3 mode Load on bypass					-
	1 Battery low	~ No	rmal OFF	~	0
Battery charger off Disable bypa	1 Battery low 2 Battery working	✓ No✓ No	rmal OFF	~	0
Battery charger off Disable bypa	1 Battery low 2 Battery working 3 Inverter locked	 No No No No 	rmal OFF	~ [0 ¢
Battery charger off Disable bypa	1 Battery low 2 Battery working 3 Inverter locked 4 Load on bypass	 No No No No No 	rmal OFF	~ [~ [
Battery charger off Disable bypa	1 Battery low 2 Battery working 3 Inverter locked 4 Load on bypass 5 UPS OK	 No No No No No No No No 	rmal OFF · · · · · · · · · · · · · · · · · ·	~ [~ [~ [
Battery charger off Disable bypa	1 Battery low 2 Battery working 3 Inverter locked 4 Load on bypass 5 UPS OK 6 Battery fail	 No 	rmal OFF · · · · · · · · · · · · · · · · · ·		
Battery charger off Disable bypa	1 Battery low 2 Battery working 3 Inverter locked 4 Load on bypass 5 UPS OK 6 Battery fail 7 Overload	 No 	rmal OFF · · · · · · · · · · · · · · · · · ·	~ [~ [~ [~ [~ [~ [

INPUT	DESCRIPTION
IN1	REMOTE ON: By closing the contact for at least 3 seconds, the UPS will switch on.
IN2	NO FUNCTION
IN3	CONFIGURABLE INPUT : use the UPS configuration software to select the function that has to be associated with IN3 (Input 3 mode default: Load on bypass).
SWMB	Manual bypass auxiliary contact (for the management of an auxiliary contact of a possible remote bypass). The auxiliary contact must be anticipated type, normally open.



The inputs IN1 / IN3 have to be used as alternative to the corresponding inputs on the AS400 port of the UPS.



For each of the eight outputs can be selected: the associated event (Output mode), the operating logic of the relay (Logic) and a delay (in seconds) in reporting the event.

OUTPUT CONTACTS DEFAULT CONFIGURATION			
Output	Output mode	Logic	Delay (s)
OUT 1	Battery low	Normal OFF	0
OUT 2	Battery working	Normal OFF	0
OUT 3	Inverter locked	Normal OFF	0
OUT 4	Load on bypass	Normal OFF	0
OUT 5	UPS OK	Normal OFF	0
OUT 6	Battery fail	Normal OFF	0
OUT 7	Overload	Normal OFF	0
OUT 8	Any alarm	Normal OFF	0

EXAMPLE 1 - if you set an output in this way:

Output mode	Logic	Delay (s)
Battery working	Normal OFF	0

the relative contact will be:

UPS working by mains	UPS in battery working mode
NC	NC
NO	NO
C	C

EXAMPLE 2 - if you set an output in this way:

Output mode	Logic	Delay (s)
Battery working	Normal ON	10

the relative contact will be:

UPS working by mains	UPS in battery working mode for at least 10 seconds
NC	NC
NO	NO
C	C

SERIES S3T / S3M / S3U

JUMPER SETTINGS AND INSTALLATION

Set the jumpers of the MultiCOM 392 referring to the following table and image.

JP1	CLOSED
JP2	OPEN
JP3	OPEN
JP4	OPEN
JP5	OPEN





MultiCOM 392 must be inserted only in the UPS slot named "COMMUNICATION SLOT 2".

- Remove the cover of the UPS slot dedicated to the contacts boards (COMMUNICATION SLOT 2) by removing the two
 retaining screws.
- Wire appropriately MultiCOM 392.
- Insert MultiCOM 392 in the slot dedicated to the contacts card (COMMUNICATION SLOT 2).
- Fix the cover provided with the MultiCOM 392 using the screws previously removed.



CONFIGURATION

MultiCOM 392 must be configured using the configuration software of the UPS.



By default no function is associated to input/output and they have to be configured via the UPS configuration software. Before setting the input/output, you must select MC392 (MultiCOM 392) for Communication slot 2.

🛃 Configurator - Version 0.0.1			- 0	×	
File Connection View Commands Op	File Connection View Commands Options Password About				
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Operating	USB/Serial	GPSER ~ 1	1200	~ (j)	
Automatic on-off	Communication slot1	GPSER ~ 1	1200	~ (Ì)	
Scheduling actions	Communication slot2	MC392 ~		i	
Battery					
Power walk-in					
Bypass					
Synchronization					
Communication					
Remote I/O					
Service					
Transformer					
🔗 Disconnect 🔊 Service	Default data				

IN 1, IN 2 and IN 3 are named "Input1-opt", "Input2-opt" and "Input3-opt" in configuration software.

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SWMB is not managed in S3T / S3M / S3U.

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File Connection View Commands	Options Password About				
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Operating	Input1-std (mode / logic / delay [ms])	No operation	✓ Contact closed	~ 0	_ () ^
Automatic on-off	Input2-std (mode / logic / delay [ms])	No operation	 ✓ Contact closed 	~ 0	
Scheduling actions	Input3-std (mode / logic / delay [ms])	No operation	 ✓ Contact closed 	~ 0	
Battery	Input4-std (mode / logic / delay [ms])	No operation	 ✓ Contact dosed 	~ 0	
Power walk-in	Input5-std (mode / logic / delay [ms])	No operation	 ✓ Contact closed 	~ 0	
Bypass	Input1-opt (mode / logic / delay [ms])	No operation	 ✓ Contact dosed 	~ 0	
Synchronization	Input2-opt (mode / logic / delay [ms])	No operation	 ✓ Contact dosed 	~ 0	
Communication	Input3-opt (mode / logic / delay [ms])	No operation	 ✓ Contact dosed 	~ 0	
Remote I/O	Output1-std (mode / logic / delay [s])	Load on bypass	∼ Relay on	~ 0	_ (I)
Service	Output2-std (mode / logic / delay [s])	Battery working	~ Relay on	~ 0	
Transformer	Output3-std (mode / logic / delay [s])	Battery low	~ Relay on	~ 0	
On Disconnect Service	Default data				

For each input can be selected: the associated function (Mode) and the operating logic of the contact (Logic).

	INPUT CONTACTS DEFAULT CONFIGURATION				
INPUT	CONFIGURABLE	Configurator	Mode	Logic	Delay (ms)
IN 1	YES	Input 1-opt	NO OPERATION	Contact closed	0
IN 2	YES	Input 2-opt	NO OPERATION	Contact closed	0
IN 3	YES	Input 3-opt	NO OPERATION	Contact closed	0
SWMB			NO FUNCTION		

For example, if you set an input in this way:

Input1-opt (mode / logic / delay [ms])

1

▼ Contact closed ▼ 100

a battery test will be executed 100ms after the contact is closed

Battery test

OUT 1, ..., OUT8 are named "Output1-opt", ..., "Output8-opt" in configuration software.

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For each of the eight outputs can be selected: the associated event (Output mode), the operating logic of the relay (Logic) and a delay (in seconds) in reporting the event.

Configurator - Version 0.0.1				777		×
File Connection View Commands	Options Password About					
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Operating	Output2-std (mode / logic / delay [s])	Battery working	Relay on	~	0	
Automatic on-off	Output3-std (mode / logic / delay [s])	Battery low	~ Relay on		0	
Scheduling actions	Output4-std (mode / logic / delay [s])	Fault or Lock (F+L)	~ Relay off	~	0	
Battery	Output1-opt (mode / logic / delay [s])	No operation	 ✓ Relay on 	~	0	
Power walk-in	Output2-opt (mode / logic / delay [s])	No operation	 ✓ Relay on 	~	0	
Bypass	Output3-opt (mode / logic / delay [s])	No operation	 ✓ Relay on 	~	0	
Synchronization	Output4-opt (mode / logic / delay [s])	No operation	✓ Relay on	~	0	
Communication	Output5-opt (mode / logic / delay [s])	No operation	 ✓ Relay on 	~	0	
Remote I/O	Output6-opt (mode / logic / delay [s])	No operation	✓ Relay on	~	0	
Service	Output7-opt (mode / logic / delay [s])	No operation	Relay on	~	0	
Transformer	Output8-opt (mode / logic / delay [s])	No operation	✓ Relay on	~	0	
Disconnect Service	Default data					

OUTPUT CONTACTS DEFAULT CONFIGURATION					
OUTPUT	CONFIGURABLE	Configurator	Mode	Logic	Delay (s)
OUT 1	YES	Output 1-opt	NO OPERATION	Relay ON	0
OUT 2	YES	Output 2-opt	NO OPERATION	Relay ON	0
OUT 3	YES	Output 3-opt	NO OPERATION	Relay ON	0
OUT 4	YES	Output 4-opt	NO OPERATION	Relay ON	0
OUT 5	YES	Output 5-opt	NO OPERATION	Relay ON	0
OUT 6	YES	Output 6-opt	NO OPERATION	Relay ON	0
OUT 7	YES	Output 7-opt	NO OPERATION	Relay ON	0
OUT 8	YES	Output 8-opt	NO OPERATION	Relay ON	0

EXAMPLE 1 - if you set an output in this way:

Output mode	Logic	Delay (s)
Battery working	Relay ON	0

the relative contact will be:



EXAMPLE 2 - if you set an output in this way:

Output mode	Logic	Delay (s)
Battery working	Relay OFF	10

the relative contact will be:



SERIES MPW / MPX

NOTE: refer also to the MPW /MPX <u>Advanced configuration manual</u> for further information.

JUMPER SETTINGS AND INSTALLATION

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Set the jumpers of the MultiCOM 392 referring to the following table and image.

JP1	CLOSED
JP2	OPEN
JP3	OPEN
JP4	OPEN
JP5	OPEN



- MPW / MPX -



MultiCOM 392 must be inserted only in the slot named "RELAY SLOT".

- Remove the cover of the slot dedicated to the contacts boards (RELAY SLOT) by removing the two retaining screws.
- Wire appropriately MultiCOM 392.
- Insert MultiCOM 392 in the slot dedicated to the contacts card (RELAY SLOT).
- Fix the cover provided with the MultiCOM 392 using the screws previously removed.



CONFIGURATION

MultiCOM 392 can be configured using the configuration software of the MPW.



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By default no function is associated to input/output and they have to be configured via the UPS configuration software. Before setting the input/output, you must select "Multicom 392 [8out/4in]" for I/O card model.

Image: Second	Image: Second	ile Connection View Commands Passw	ord About					
Configuration Basic Advanced Bypass Battery Battery test External I-O I/O card model Output contact Output contact Output mode Logic Delay Multicom 382 [4 out/1 in] O Multicom 384 [4 out/3 in] Output contact 0 0 2 Battery low Normal OFF 0 Input contact Input 1 mode No operation Inverter locked Normal OFF 0 Input 2 mode No operation V 1 Load on bypass Normal OFF 0 Input 3 mode No operation S Normal operation Normal OFF 0 Input 4 mode No operation S Normal operation Normal OFF 0 Input 4 mode No operation S Normal operation Normal OFF 0 Input 4 mode No operation S Normal operation Normal OFF 0 Input 4 mode No operation S Normal operation Normal OFF 0	Configuration Sasic Advanced Bypass Battery Battery test External I-O I/O card model Multicom 382 [4 out/1 in] Multicom 384 [4 out/3 in] Output contact Output mode Logic Delay Multicom 392 [8 out/4 in] Mo card Battery low Normal OFF 0 Input contact Input 1 mode No operation Inverter locked Normal OFF 0 Input 2 mode No operation No Softward Softward Softward Softward Input 3 mode No operation No Softward Normal OFF 0 Softward	à 🖏 🛃 💿 🦄 🕨 📕	s, s;					
I/O card model Output contact Output mode Logic Delay Multicom 382 [4 out/1 in] Multicom 384 [4 out/3 in] Normal OFF <	I/O card model Output contact Logic Delay Multicom 382 [4 out/1 in] Multicom 384 [4 out/3 in] Output mode Logic Delay Multicom 392 [8 out/4 in] No card 1 Battery low Normal OFF 0 Input contact Input 1 mode No operation Inverter locked Normal OFF 0 Input 2 mode No operation No Normal OFF 0 0 Input 3 mode No operation S Normal operation Normal OFF 0 6 Battery not present Normal OFF 0 0 0 0	🕽 Configuration 🦠 Basic 🧳 Advan	ced (Bypass 🔋 Bat	tery 🚯 Battery test	t 🔌 Exte	rnal I-O		
OMulticom 382 [4 out/1 in] OMulticom 384 [4 out/3 in] Imput contact Omegation Input 1 mode No operation Input 2 mode No operation Input 3 mode No operation Input 4 mode No operation	OMulticom 382 [4 out/1 in] OMulticom 384 [4 out/3 in] Imput contact Omegation Input 1 mode No operation Input 2 mode No operation Input 3 mode No operation	I/O card model		Output contact	4	Logic	Dela	v (c)
 Multicom 392 [8 out/4 in] O No card Input contact Input 1 mode No operation Input 2 mode No operation Input 3 mode No operation No operation Input 4 mode No operation O Source A Battery working Normal OFF Inverter locked Normal OFF Inverter locked Normal OFF Inverter locked Normal OFF Normal OFF	• Multicom 392 [8 out/4 in] • No card • Input contact • Input 1 mode • No operation • Input 2 mode • No operation • Input 3 mode • No operation • Input 3 mode • No operation • No operation • Normal OFF • • No operation • No operation • Normal OFF • • Input 3 mode • No operation • No operation • Normal OFF • • No operation • No operation • Normal OFF • • Notral 0 operation • No operation • Normal OFF • • No operation • No operation • Normal OFF • • Notral 0 operation • No operation • Normal OFF •	○ Multicom 382 [4 out/1 in] ○ M	ulticom 384 [4 out/3 in]	1 Battery low	~	Normal OFF	v 0	y (3)
Input contact 3 Inverter locked Normal OFF 0 Input 1 mode No operation 4 Load on bypass Normal OFF 0 Input 2 mode No operation 4 Load on bypass Normal OFF 0 Input 3 mode No operation 5 Normal operation 0 Input 4 mode No operation 6 Battery not present Normal OFF 0 Input 4 mode No operation 7 Overload Normal OFF 0	Input contact 3 Inverter locked Normal OFF 0 Input 1 mode No operation 4 Load on bypass Normal OFF 0 Input 2 mode No operation 5 Normal operation 0 Input 3 mode No operation 6 Battery not present 0	Multicom 392 [8 out/4 in]	o card	2 Battery working	~	Normal OFF	~ 0	
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Input 4 mode No operation \checkmark 7 Overload \checkmark Normal OFF \checkmark 0	i batter y hot presenter i i honner of the	Input 3 mode No op	eration ~	6 Battery not pres	ent v	Normal OFF		•
	Input 4 mode No operation V 7 Overload V Normal OFE V 0	Input 4 mode No op	eration v	7 Overload	~ ~	Normal OFF		•
8 Any alarm V Normal OFF V 0				8 Any alarm	~	Normal OFF		
				Anyalam	Ť	Normar Orr		•

For each input can be selected: the associated function (Input mode).

INPUT CONTACTS DEFAULT CONFIGURATION			
INPUT	CONFIGURABLE	Configurator	Mode
IN 1	YES	Input 1 mode	NO OPERATION
IN 2	YES	Input 2 mode	NO OPERATION
IN 3	YES	Input 3 mode	NO OPERATION
SWMB	YES	Input 4 mode	NO OPERATION



For each of the eight outputs can be selected: the associated event (Output mode), the operating logic of the relay (Logic) and a delay (in seconds) in reporting the event.

OUTPUT CONTACTS DEFAULT CONFIGURATION			
Output	Output mode	Logic	Delay (s)
OUT 1	Battery low	Normal OFF	0
OUT 2	Battery working	Normal OFF	0
OUT 3	Inverter locked	Normal OFF	0
OUT 4	Load on bypass	Normal OFF	0
OUT 5	Normal operation	Normal OFF	0
OUT 6	Battery not present	Normal OFF	0
OUT 7	Overload	Normal OFF	0
OUT 8	Any alarm	Normal OFF	0

EXAMPLE 1 - if you set an output in this way:

Output mode	Logic	Delay (s)
Battery working	Normal OFF	0

the relative contact will be:

UPS working by mains	UPS in battery working mode
NC	NC
NO	NO
C	C

EXAMPLE 2 - if you set an output in this way:

Output mode	Logic	Delay (s)
Battery working	Normal ON	10

the relative contact will be:

UPS working by mains	UPS in battery working mode for at least 10 seconds
Image: state sta	

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