

EZPull MTX-8/VR Setup Manual

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Overview

This manual is intended for gun club personnel responsible for setting up the EZPull *MTX-8* multi-target controller.



Keypad main functions

Keys	Function
1-8	Release targets or select item by number
3	Move up or increase value
8	Move down or decrease value
4	Move left
5	Move right
[⊙↵]	Enter or Fire in auto mode
[⏻↑]	ON/OFF or Exit

Turn EZPull MTX-8 On

To start using MTX-8, remove the protective rubber boot and open the battery door. Follow the battery polarity marking on the bottom of the compartment, install 2 AA batteries in the battery compartment and replace the battery door and rubber boot.

The LCD will display the version number for 3 seconds and then the MTX-8 will turn off.

To turn MTX-8 On: Press the ON/OFF/SHIFT key [⏻↑]. The Main Menu will display on the LCD.



Accessing Setup Menu

From the main menu, press and release the [3-C] key to access the Setup Menu.

If this is the first time you access Setup, the display will show "NO PASSWORD!".

Otherwise, you will need to enter the 4 digit password using the numeric keys 1-8. The display will show the Setup Options Menu:

1. PREF: Preferences Setup.
2. TAGT: Target Setup for Automatic Sequencing.
3. RSET: Reset Target Menu to Factory Default.
4. EXIT: Exit back to the Main Menu.



MTX-8 Preferences Setup

From the Setup Options menu, press and release the [1-A] key to access Preferences setup.

When in Preferences Setup, use the ◀ [4-D] and ▶ [5-E] keys to navigate between setup items.

The setup item is shown on the top area of the display. Use the ▲ [3-C] and ▼ [8-H] keys to modify the selected setup item's value.

The setup value is shown in large digits on the right side of the display. Also shown are arrows indicating available navigation keys: Up Down, Left or Right.

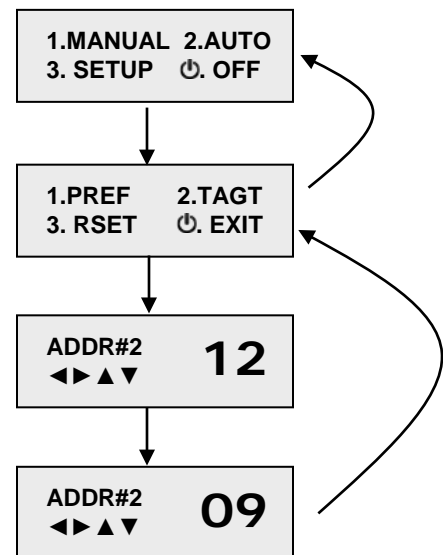
Use the Enter [⏏] key to save each modified value individually. Use the [⇧] key to exit and return to the Setup Options Menu.

Use the [⇧] key to exit and return to the Setup Options Menu.

Setup Example

Changing the Address value:

1. From the main menu, press [3] to select **SETUP**.
2. From the Setup Options Menu, Press [1] to enter Preferences.
3. Press the [5] key to navigate and select **ADDR#2**.
4. Use the [3] or [8] keys to modify the value.
5. Press the Enter [⏏] key to save the new value.
6. Press the SHIFT key [⇧] to exit and return to the Setup Options Menu
7. Press the SHIFT key [⇧] to exit and return to the Main Menu.



Preferences Setup Items Table – Standard model

Name	Description	Value range
SOLODLY	When TXDIRECT = 1: SOLODLY = 0, No delay; SOLODLY > 0, Solo delay in seconds	00-09
	When TXDIRECT = 0: the solo delay for manual targets is determined by the card on TMGR (*). For correct operation of report and delayed pairs in Auto mode, set SOLODLY = 1.	
MENU	The menu number that will be used for Automatic Sequencing	5-Stand: 01-06 Flurry: 01-03
BACKLIT	0 = LCD backlight OFF; 01-15, backlight ON (**) duration in seconds from pressing any key.	00-15
RESERV	Reserved – not accessible	00-00
ACCES	0 = access setup only with password; 1 = allow limited access to setup	00-01
FPDLAY	Default Following-Pair delay in seconds	01-06
GAME	Game type for automatic mode: 0 = automatic disabled; 1 = 5-Stand; 2 = Flurry	00-02
CHAR/#	0 = show traps as number 1-8; 1 = show traps as characters A-H	00-01
IDLTIME	Idle time to OFF in minutes	03-15
ADDR#1	The 1st part of the radio address (Field ID)	01-14
ADDR#2	The 2nd part of the radio address (Station ID)	01-99
TXDIRECT	0 = control traps via TMGR (*); 1=control traps directly	00-01
PW-1	1st digit of password to access Setup	01-08
PW-2	2nd digit of password to access Setup	01-08
PW-3	3rd digit of password to access Setup	01-08
PW-4	4th digit of password to access Setup	01-08
When ACCESS = 1, Highlighted items can be accessed without password		

(*) TMGR = Target Manager *Pay & Play* target control system.

(**) LCB backlight duration varies with the operation mode. The value selected in BACKLIT represent the maximum duration which will typically apply only in Setup Mode.

Detailed Review of Preferences Items

Setup Items common to all models:

MENU: The menu number that will be used for automatic sequencing mode. There are 6 Five-Stand menus and 3 Flurry menus that can be modified by the club's administrator. Select the menu that will be available to the users. See the built-in menus in Appendix 1.

BACKLIT: Controls the LCD back light. LCD backlight consumes considerable power and reduces the battery life. Unless using the MTX-8 at night, set this parameter to 00 = LCD backlight OFF. Otherwise, set to any value up to 15 seconds. The backlight will turn ON after each key press. The actual backlight duration varies with the operation mode. The value selected in BACKLIT represent the maximum duration which will typically apply only in Setup Mode. During target release the backlight duration is determined automatically.

FPDLAY: Default Following-Pair delay in seconds. When you program an automatic target sequence, you have an option to select a Following-Pair in which the second target will be delayed by anywhere from 1 to 6 seconds. The FPDLAY is the default value that will be assigned automatically when you select a Following-Pair release mode. You can then modify the delay for each individual pair on the menu. In certain setup selection, the value set in FPDLAY is also used for timing the release of the second "report/following" target. See SOLODLY and SHOTCNT for more information.

GAME: The game type for automatic sequence control. Select 00 to completely prevent access to automatic sequencing and use the MTX-8 only in Manual mode. Select 01 for Five-Stand or 02 for Flurry.

CHAR/#: If you would like to identify the traps numerically (typically for 5-Stand), set to 0. Set to 1 to identify traps by alphabetical order (A-H for FITASC). Flurry targets are always numeric.

IDLTIME: Select how many minutes of idle time (no key presses) will pass before the MTX-8 will automatically turn OFF. Once OFF, you will need to press the ON/OFF key [ON/OFF] to resume operations from where you left the unit.

PW-1 through PW-4: Select and set a 4 digit password to access Setup Menus. The password is intended to prevent users from tampering with the MTX-8 setup. Do not leave the device without a password. Make the 4 digit password using only numbers between 1 and 8 (not 0 or 9!). You will need to remember this number in order to access the setup menu. Write it down and keep in safe place. Enter and save each of the 4 digits in PW1, PW2, PW3 and PW4 respectively.

ACCESS: Determines if users can have limited access to less critical setup items they may need to adjust. Set to 1 to allow limited access to items (see items highlighted in tables above). Set to 0 to prevent any access to setup without password.

Setup Items specific to the standard version:

SOLODLY: The solo-delay setup depends on the value selected TXDIRECT.

- TXDIRECT = 1 - MTX-8 controls the traps directly:
SOLODLY = 0, No delay; SOLODLY > 0, Solo delay in seconds.
- TXDIRECT = 0 - MTX-8 controls the traps via TargetManager, the solo-delay is determined by TargetManager based on the delay programmed the RFID card.
 - Manual Mode: For targets released manually, SOLODLY is ignored.
 - Auto Mode: for correct delays of report or delayed pairs in AUTO mode, set the MTX-8 on SOLODLY = 1. This will have the following affect: All Report Pairs (>) on the menu will be converted to Delayed Pairs (~). The Following Delay (S.) value set in Auto mode will be ignored. The delay for the second target will be the FRDL value selected in the TargetManager Setup menu (see EZP_TMGR_AdminGuide_V3.pdf).

TXDIRECT: When set to 1, the MTX-8 can control traps directly without counting targets. Set to 0 to work with TargetManager target inventory and payment control system.

Note: The Voice Release version is intended for personal use and does not support Target Manager.

RESERV: reserved for future use.

ADDR#1: The first part of the digital radio address:

- TXDIRECT = 1 - MTX-8 controls the traps directly, the EZPull receivers on the multi-trap layout must be paired with the MTX-8
- TXDIRECT = 0 - MTX-8 controls the traps via TargetManager ADDR#1 must match the RCAD value on TMGR setup menu.

ADDR#2: The second part of the digital radio address:

- TXDIRECT = 1 - MTX-8 controls the traps directly, the EZPull receivers on the multi-trap layout must be paired with the MTX-8
- TXDIRECT = 0 - MTX-8 controls the traps via TargetManager ADDR#2 must match the RCCH value on TMGR setup menu.

MTX-8 Menu Setup for 5-Stand

MTX-8 has 6 factory built-in Five-Stand menus (*). The club's administrator can modify (reprogram) each of these menus to suit specific 5-Stand layouts and shooter levels.

The built-in menus are:

1. Level 1, 6 traps – all singles
2. Level 2, 6 traps – three singles and a pair
3. Level 3, 6 traps – one single and two pairs
4. Level 1, 8 traps – all singles
5. Level 2, 8 traps – three singles and a pair
6. Level 3, 8 traps – one single and two pairs

(*) See the specific built-in menus in Appendix 1.

5-Stand Menu Programming Overview

To understand MTX-8 5-Stand menu programming consider the 5-Stand sequence as a table with 5 columns, one for each shooting stand and up to 5 rows one for each shooting queue (steps). The table below illustrates a 5-Stand menu with 3 singles and one report pair on each station:

		Stand (S)				
		1	2	3	4	5
Queue (Q)	1	2	1	5	4	6
	2	1	4	6	3	2
	3	6	3	4	5	1
	4	4>5	2>6	1>3	2>4	3>5
	5	-	-	-	-	-

Since we work with a very small display, we can only see one “cell” of the table on the screen. We use the navigation keys to “shuttle” from cell to cell in the table:

- The ◀ [4-D] and ▶ [5-E] keys are used to navigate between stands (columns).
- The ▲ [3-C] and ▼ [8-H] keys are used to navigate between queues (rows)
- The Enter [Ⓜ.Ⓜ] key is used to enter into a cell so that we can modify the trap selection and release mode.

Once “inside” the cell:

- The ◀ [4-D] and ▶ [5-E] keys are used to navigate between the items.
- The ▲ [3-C] and ▼ [8-H] keys are used to change the value of the selected item.
- The Enter [Ⓜ.Ⓜ] key is used to save changes and exit the cell.
- Alternatively, the [Ⓜ↑] key can be used to exit the cell without saving.

Modifying a 5-Stand Menu

Before attempting to modify a 5-Stand menu, it is recommended you write the menu in a table format (Use a copy of the table form provided in Appendix #2) and work with the table in front of you. Determine the desired release mode for each pair. The release modes available are:

Release mode	Symbol	When pressing the Fire [Ⓢ] key
True Pair	1 + 2	Two targets release simultaneously
Report Pair	1 > 2	First target released. RED light ON steady. Press the fire [Ⓢ] key again upon shooters gunshot (report) to throw the second target.
Following Pair	1 ~ 2 4	First target released. RED light blinks. Second target released automatically after the number of seconds indicated under the ~ symbol (i.e., 4 seconds)

- From the Preferences Menu (see above), select the menu number that will be used. Save it and return to the Setup Options menu.
- From the Setup Options Menu: Press the [2-B] key to access Target Menu Setup.
- Press the Enter [Ⓢ] key to start.
- The number of queues (steps) in the currently selected menu number is displayed.
- If needed, use the ▲ [3-C] and ▼ [8-H] keys to select the number of queues that will be used in the modified menu. Typically the number of queues corresponds to the shooting level:

Level	Targets	Number of queues
1	all singles	5
2	three singles and a pair	4
3	one single and two pairs	3

- Press the Enter [Ⓢ] key to continue.
- You will see the first (top/left) cell in the table. In the example we show a cell, corresponding with Appendix #1, menu No, 2, with a single trap 2.

S:1	T1	T2	RM	S.
Q:1	2			0

7.1. The left side of the display shows the cell coordinates:
S:1 for stand #1 and Q:1 for queue #1

7.2. The top line of the display shows T1 for 1st trap, T2 for 2nd trap, RM for Pair Release Mode and "S." for Following-Pair Delay. The second line shows the values for the items in the first line.

- To Modify the Trap:

8.1. Press Enter [Ⓢ] key to enter into a cell. The title "T1" for the first trap will be highlighted.


S:1	T1	T2	RM	S.
Q:1	2			0

8.2. Use the ▼ [8-H] key to change the trap number to #1. The cell coordinates will become highlighted indicating a change has been made to the menu.


S:1	T1	T2	RM	S.
Q:1	1			0

8.3. Save the changes: the Enter [Ⓢ] key to save changes and exit the cell.


- 9. We will now modify the cell in Stand #2, queue #4 from a true pair 2+6 to a Report Pair 1 > 8:
 - 9.1. Use ► [5-E] key to navigate to stand 2.
 - 9.2. Use the ▼ [8-H] key three times to navigate to queue 4.
 - 9.3. Press Enter [Ⓜ↵] key to enter into a cell.
 - 9.4. Use the ▼ [8-H] keys to change T1 to #1.
 - 9.5. Use ► [5-E] key to navigate to T2.
 - 9.6. Use and the ▲[3-C] to change T2 to #8.
 - 9.7. Use ► [5-E] key to navigate to RM.
 - 9.8. Use and the ▲[3-C] to change RM from "+" to ">"
 - 9.9. Save the changes: the Enter [Ⓜ↵] key to save changes and exit the cell.



S:2	T1	T2	RM	S.
Q:4	2	6	+	0



S:2	T1	T2	RM	S.
Q:4	1	8	>	



S:2	T1	T2	RM	S.
Q:4	1	8	>	0

MTX-8 Menu Setup for Flurry

MTX-8 has 3 factory built-in Flurry menus (*). The club's administrator can modify (reprogram) each of these menus to suit specific Flurry layouts and number of shooters and their shooting levels. The built-in menus are:

Menu	Recommended number of shooters	Number of Targets
1	2 man – max. simultaneous targets = 2	30
2	2 man – max. simultaneous targets = 4	50
3	3 man – max. simultaneous targets = 3	50

(*) See the specific built-in menus in Appendix #3.

Flurry Menu Programming Overview

To understand MTX-8 Flurry menu programming, consider the Flurry sequence as a table with three columns: first target, second target and delay to next set of targets. Each row has a set of targets. If the delay between two sets (rows) is 0, the two sets will be released at once allowing up to four targets to be presented simultaneously. The table below illustrates a portion of a Flurry menu:

#	1st Trap	2nd Trap	Wait Sec.	Description
1	1	2	1	Pair 1 + 2 Wait 1 Sec.
2	3	4	5	Pair 3 + 4 Wait 5 Sec.
3	1	3	2	Pair 1 + 3 Wait 2 Sec.
4	2		1	Single 2 Wait 1 Sec.
5	4		3	Single 4 Wait 3 Sec.
6	1	2	0	4 Targets: 1 + 2 + 3 + 4
7	3	4	3	Then wait 3 Sec.
8	2		3	Single 2 Wait 3 Sec.
9	1	3	1	Pair 1 + 3 Wait 1 Sec.
10	2		2	Single 2 Wait 2 Sec.

Note the highlighted rows 6-7 will release traps 1, 2, 3 and 4 simultaneously.

Since we work with a very small display, we can only see one "row" of the table on the screen.

We use the navigation keys to "shuttle" from row to row in the table:

- The ▲ [3-C] and ▼ [8-H] keys are used to navigate between steps (rows)
- The Enter [Ⓜ.] key is used to enter into a row so that we can edit/modify the trap selection and delay to the next step.

Once "inside" the row:

- The ◀ [4-D] and ▶ [5-E] keys are used to navigate between the items.
- The ▲ [3-C] and ▼ [8-H] keys are used to change the value of the selected item.
- The Enter [Ⓜ.] key is used to save changes and exit editing mode.
- Alternatively, the [⏏] key can be used to exit the row without saving.

Modifying a Flurry Menu

Before attempting to modify a Flurry menu, it is recommended you write the menu in a table format (Use a copy of the table form provided in Appendix #4) and work with the table in front of you. Determine the desired target combinations and delays considering the following:

- Bear in mind how many shooters will shoot this menu and allow enough delay between steps for reloading.
- Allow enough delay for the traps to completely rearm. Using the same trap again with delays shorter than 2-3 seconds will result in skipped or broken targets. Some traps require up to 5 seconds to rearm.

1. From the Preferences menu (see above), select the menu number that will be used. Save it and return to the Setup Options menu.
2. From the Setup Options Menu: Press the [2-B] key to access Target Menu Setup.
3. Press the Enter [Ⓜ↵] key to start.
4. The number of targets in the currently selected menu is displayed.
5. If needed, use the ▲ [3-C] and ▼ [8-H] keys to change the number of targets that will be used in the modified menu.

6. Press the Enter [Ⓜ↵] key to continue.

7. You will see the first row in the table.

In the example we show the first step in menu #2, Appendix #3. →

TGT	T1	T2	RM	S.
50	1	2	+	1

7.1. The left side of the display shows the total number of targets.

7.2. The top line of the display shows T1 for 1st trap, T2 for 2nd trap, RM for Pair Release Mode and "S." for the delay to the next step. The second line shows the values for the items in the first line.

8. To Modify the Trap:

8.1. Press Enter [Ⓜ↵] key to enter into a cell.

The title "T1" for the first trap will be highlighted. →

TGT	T1	T2	RM	S.
50	4	2	+	1

8.2. Use the ▼ [8-H] key to change the trap number to #4.

The number of targets on the left, will become highlighted indicating a change has been made to the menu.

8.3. Save the changes: the Enter [Ⓜ↵] key to save changes and exit edit mode.

9. We will now modify Two rows in the menu to throw 4 targets at once 1, 3, 4 and 5 and then allow 5 seconds delay to reload:

9.1. Use ▲ [3-C] or ▼ [8-H] keys to navigate to the desired row.

9.2. Press Enter [Ⓜ↵] key to enter edit mode.

9.3. Use ▲ [3-C] or ▼ [8-H] keys to change T1 to "1".

9.4. Use ► [5-E] key to navigate to T2.

9.5. Use ▲ [3-C] or ▼ [8-H] keys to change T2 to "3".

9.6. Use ► [5-E] key to navigate to S.

9.7. ▼ [8-H] keys to change S. to "0"

9.8. Save the changes: the Enter [Ⓜ↵] key to save changes.

9.9. Use the ▼ [8-H] keys to navigate to the next row.

9.10. Press Enter [Ⓜ↵] key to enter edit mode.

TGT	T1	T2	RM	S.
50	1	3	+	0

TGT	T1	T2	RM	S.
50	4	5	+	5

- 9.11. Change T1 to "4" and T2 to "5".
- 9.12. Change S. to "5" allowing 5 seconds to reload.
- 9.13. Save the changes: the Enter [↵] key to save changes and exit edit mode.

Resetting Target Menus to Factory Default

Use this option carefully! Resetting Target menus to the built-in factory default will over write any custom designed Target Menu programmed into the MTX-8.

1. From the Setup Options Menu: Press the [6-F] key to access the RESET MENUS option.
2. Press the Enter [↵] key to revert to the factory default menus and erase all "customized" menus.

Appendixes:

Appendix #1: Built-in 5-Stand Menus

Menu Number 1						
6 Trap LEVEL 1		Stand				
		1	2	3	4	5
Queue	1	5	1	4	2	6
	2	2	4	3	6	5
	3	1	5	6	4	3
	4	6	3	1	5	2
	5	4	2	5	3	1

Menu Number 2						
6 Trap LEVEL 2		Stand				
		1	2	3	4	5
Queue	1	2	1	5	4	6
	2	1	4	6	3	2
	3	6	3	4	5	1
	4	4>5	2>6	1>3	2>4	3>5

Menu Number 3						
6 Trap LEVEL 3		Stand				
		1	2	3	4	5
Queue	1	2	6	4	3	1
	2	1>5	3>4	2>5	5>6	2>6
	3	4+6	1+2	3+6	1+4	3+5

Menu Number 4						
8 Trap LEVEL 1		Stand				
		1	2	3	4	5
Queue	1	5	6	2	1	3
	2	3	4	7	5	2
	3	1	2	8	6	7
	4	6	3	1	4	8
	5	8	5	4	7	1

Menu Number 5						
8 Trap LEVEL 2		Stand				
		1	2	3	4	5
Queue	1	3	4	2	3	7
	2	6	8	1	4	5
	3	1	5	7	6	3
	4	2>7	3>6	4>8	1>5	2>8

Menu Number 6						
8 Trap LEVEL 3		Stand				
		1	2	3	4	5
Queue	1	1	3	5	7	2
	2	3>8	1>5	6>8	1>4	2>7
	3	2+6	4+7	2+3	5+6	4+8

Appendix #2: Automatic Sequence 5-Stand Forms:

		Menu #				
		Stand				
		1	2	3	4	5
Queue	1					
	2					
	3					
	4					
	5					

		Menu #				
		Stand				
		1	2	3	4	5
Queue	1					
	2					
	3					
	4					
	5					

Appendix #3: Built-in Flurry Menus:

Menu #1 4 Traps - 30 Targets		
T1	T2	DELAY
1		1
2		1
3	4	5
1		2
2		2
3	4	3
1		3
2		3
3	4	1
1		4
2		3
1		1
3	4	4
2		2
1		3
3	4	3
2		1
1		5
3	4	2
1	2	7
3	4	1
2		1

Menu #2 4 Traps - 50 Targets		
T1	T2	DELAY
1	2	1
3	4	5
1	3	2
2		1
4		3
2		1
1		1
3		3
3		2
1	2	0
4		3
2		3
1	3	1
2		2
3		4
1	2	0
3	4	7
2	3	2
1	4	4
1	2	2
3		3
2	4	3
3	4	4
1	2	2
3		4
1		4
1	3	2
2		1
4		5
1	3	3
3		4
1	2	0
3	4	1

Menu #3 5 Traps - 50 Targets		
T1	T2	DELAY
1	2	0
3		1
4	5	5
1	2	0
4		2
3	5	4
1	4	1
2		1
3	5	5
1	2	0
4		1
3		1
5		4
1	4	2
3	5	1
2		3
1	4	4
2	3	0
5		2
1		4
2	5	1
1	4	4
3	5	1
1	2	0
4		5
5		1
2	3	1
1	4	5
3	5	1
1	2	0
4		1

