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Yamaha TS Series Master Driver

Information Sheet for Crimson v3.0+

Compatible Devices

Yamaha TS Series Robot Controller

Verified Device

Yamaha TS-X

Accessing Data

NOTE: It is the programmer's responsibility to protect data so that only valid values are sent to the TS controller. In the event the TS controller responds with an error, the error will be stored in the Latest Error Message data item provided in the driver.

The Latest Error Message is designed to be mapped to string tags with the Packing set to ASCII Big-Endian. The request that caused the error is revealed when mapping to element 0 of the Latest Error Message. Likewise, the error message received from the controller will be displayed beginning at element 6.

Access to the data in the following table is provided for read/write operations. The element mapped represents the point/parameter number.

Prefix	Description	Range
M	Operation Type	1 – 255
P	Position	1 – 255
S	Speed	1 – 255
AC	Acceleration	1 – 255
DC	Deceleration	1 – 255
Q	Push	1 – 255
ZL	Zone (-)	1 – 255
ZH	Zone (+)	1 – 255
N	Near Width	1 – 255
J	Jump	1 – 255
F	Flag	1 – 255
T	Timer	1 – 255
K	Parameter Data	1 – 138

The commands noted in the following table allow write only access.

Prefix	Description	Notes
START	Positioning Operation	To start position operation set desired point data value
STOP	Operation Stop	*
ORG	Return-To-Origin	*
JOG+	JOG Movement (+ direction)	*
JOG-	JOG Movement (- direction)	*
INCH+	Inching Movement (+ direction)	*
INCH-	Inching Movement (- direction)	*
SRVO	Servo Status Change	Set bit = Servo ON, Clear bit = Servo OFF
BRK	Brake Status Change	Set Bit = Brake ON, Clear bit = Brake Release
RESET	Reset	*
TEACH	Current Position Teaching	Element mapped represents destination point number *
COPY	Point Data Copying	**
DELETE	Point Data Deleting	***

*- The write command is executed when the command bit is set. The command bit will need to be cleared before the system will see the next set of the bit.
**-The element mapped represents the source point number, while the set value represents the destination point number. Operation is executed upon the setting of a non-zero value.
***-The element mapped represents the starting point number, while the set value represents the ending point number. Operation is executed upon the setting of a non-zero value.

The registers in the following table provide read only access.

Prefix	Description	Range
D	Status Information	0 - 20
IN	Input Information	n/a
INB	Input Information Bits	0 - 15
OUT	Output Information	n/a
OUTB	Output Information Bits	0 - 15
WIN	Input Word Information	0 - 3
WOUT	Output Word Information	0 - 3
OPT	Option Information	0 - 2
OPTB	Option Information Bits	0 - 31
ALM	Alarm Information	1 - 32
WARN	Warning Information	1 - 32

Cable Information

Serial:

G3 RS232 Port	TS-X RS-232 Port
CBLGEN01	KCA-M538F-000

Revision History

05/20/13- Created