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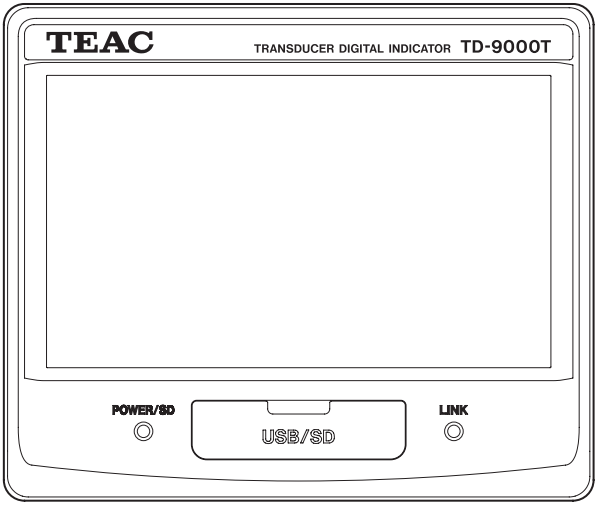
TEAC

EtherNet/IP™ Instructions for Use

TD-9000T(E/IP)

EtherNet/IP™



Introduction

Thank you for purchasing the TD-9000T (E/IP)/(P-E/IP) Digital Indicator.
Please read this manual and the manual for the main unit completely before using them to get the best performance and ensure safe and proper operation.

Included accessories

If anything is missing or damaged, contact us. (For contact information, see the last page.)

Disclaimers

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For information about EtherNet/IP™ communications, refer to dedicated documents about it, for example.

ATTENTION

EtherNet/IP™ and USB/RS232C can be used for transmission with this unit. When using EtherNet/IP™ for control, however, discontinue control by USB/RS232C, and when using USB/RS232C for control, discontinue control by EtherNet/IP™. Operation cannot be guaranteed when controlled by both at the same time.

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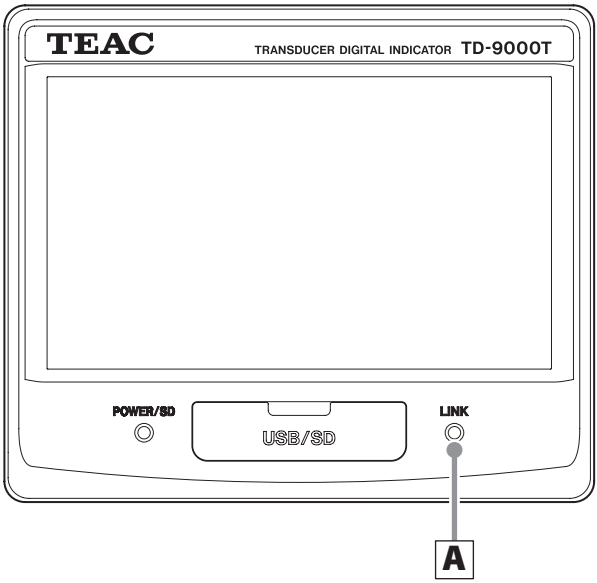
1. Names and functions of parts

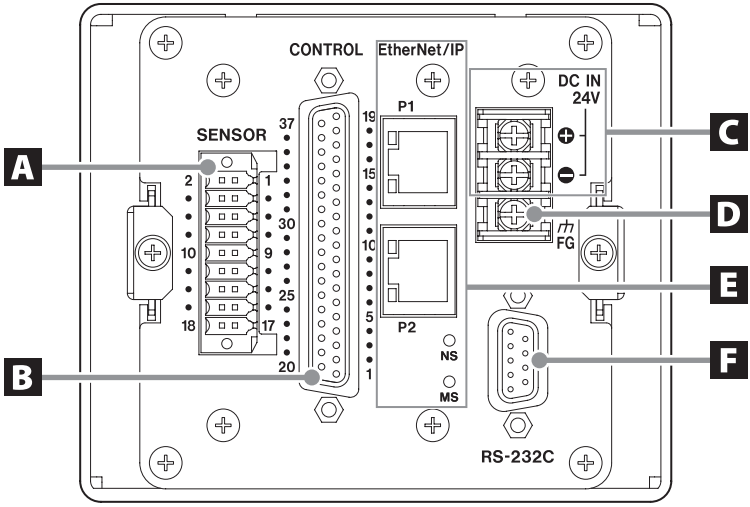
1-1. Front



A **LINK indicator**

Unlit: No connection
Blinking: Waiting for connection
Lit: Connection established
Blinking rapidly: Connection error

1-2. Back



A SENSOR connector

Insert the included sensor connector plug here.

B CONTROL connector

C DC power supply input terminals

Connect a DC power supply.
The voltage range is DC 24 V ±10%.

D FG (frame grounding) terminal

Frame grounding terminal for DC power supply.

⚠ **Always be sure to connect the frame grounding terminal.**

E EtherNet/IP

P1 connector

P2 connector

NS indicator

Unlit:	Either no power supplied or IP address not set
Lit green:	Online and connection established
Blinking green:	Online but connection not established
Lit red:	IP address is duplicated or fatal error
Blinking red:	One or more connections have timed out (CIP Class 1 or 3)

MS indicator

Unlit:	No power supplied
Lit green:	Normal
Blinking green:	Scanner is idle
Lit red:	Malfunction or network trouble
Blinking red:	Parameter error

NOTE

These are equipped for EtherNet/IP™ use.

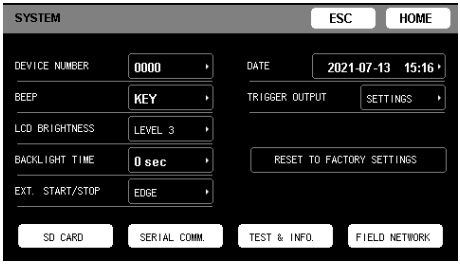
F RS-232C connector

2-1. FIELD NETWORK

2-1-1. SETTINGS

To open the FIELD NETWORK screen, touch the buttons in the following order on the Home Screen.

⚙ ➡ CALIB. & SYSTEM ➡ SYSTEM ➡ FIELD NETWORK



CONTROL INPUT

Select the device control method.
Only one method can be used for control.
CONT.TERMINAL (Control terminal): Use external contact.
COMM. (Communication control): Use communication.

MEMORY CONTROL

Select the sensor number and work number switching method.
FORBID: Use control input signals.
ALLOW: Use communication.
(Work switching is only enabled when work number switching is set to external input in the work settings.)

EtherNet/IP

Ethernet settings

2-2. EtherNet/IP™

Refer to the following values for connection input/output settings.

Input settings

Instance ID: 100
Data size: 48-byte

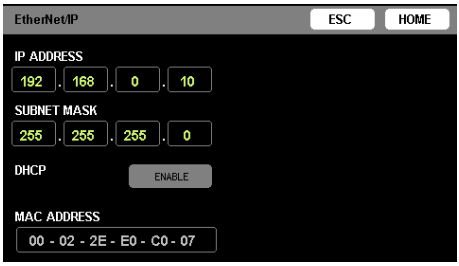
Output settings

Instance ID: 150
Data size: 2-byte

2-2-1. Settings

To open the EtherNet/IP™ screen, touch the buttons in the following order on the Home Screen.

⚙ ➡ CALIB. & SYSTEM ➡ SYSTEM ➡ FIELD NETWORK ➡ SETTINGS (next to "EtherNET/IP")



The input items change according to the DHCP setting.

When DHCP is off

Set the following items.
IP ADDRESS
SUBNET MASK

When DHCP is on

Values for the following items will be set by DHCP. They cannot be input.
IP ADDRESS
SUBNET MASK

MAC

The MAC address of this unit will be shown.

ATTENTION

Restart the power after changing EtherNet/IP™ settings.

2-3. Cyclic communication (implicit messages)

- Communication from a TD-9000T to a scanner will return indicator values and measurement results. Data size is 24 words.
- Communication from a scanner to a TD-9000T will send control signals to start/stop measurement, for example. Data size is 1 word.

Communication from a TD-9000T to a scanner

Input data (TD-9000T to scanner)

Word (16-bit)	Content	
0	Measurement status	
1	Current value	Current status
2		Load
3		Displacement
4		Load peak
5		Load bottom
6	Band judgment	Load
7		Time/displacement*
8		Result judgment
9	Zone 1	Load
10		Time/displacement*
11		Result judgment
12	Zone 2	Load
13		Time/displacement*
14		Result judgment
15	Zone 3	Load
16		Time/displacement*
17		Result judgment
18	Zone 4	Load
19		Time/displacement*
20		Result judgment
21	Zone 5	Load
22		Time/displacement*
23		Result judgment

*This depends on the X axis setting.

- The time unit is ms.

2. Communication functions

Measurement status

Bit	15	14	13	12	11	10	9	8
Setting	Measuring	Measurement complete	Trigger output		X axis displacement	Band judgment		
Status			2	1		HI	OK	LO

Bit	7	6	5	4	3	2	1	0
Setting	Overall displacement judgment				Overall load judgment			
Status	NG	HI	OK	LO	NG	HI	OK	LO

Current status

Bit	15	14	13	12	11	10	9	8
Setting	OVER/FULL	SD card error	Sensor number		Work number			
Status			bit1	bit0	bit3	bit2	bit1	bit0

Bit	7	6	5	4	3	2	1	0
Setting	Load decimal point position			Continuous load judgment				
Status	MSB		LSB	HH	HI	OK	LO	LL

Result judgment

Bit	15	14	13	12	11	10	9	8
Setting	Judgment method				Displacement judgment			
Status	MSB			LSB	NG	HI	OK	LO

Bit	7	6	5	4	3	2	1	0
Setting					Load judgment			
Status					NG	HI	OK	LO

Judgment method

0	Constant comparison
1	Sample
2	Peak
3	Bottom
4	Peak to peak
5	Average value
6	Maximum value
7	Minimum value
8	Inflection point

Load decimal point position

0	00000
1	0000.0
2	000.00
3	00.000
4	0.0000

Communication from a scanner to a TD-9000T

Output data (scanner to TD-9000T)

Bit	15	14	13	12	11	10	9	8
Setting	Clear peak/ bottom	Prevent touchscreen operation	Enable/ disable judgment output	Force backlight lighting	Switch zone	Reserved	Clear results (reset measurement results)	Start/stop measurement

Bit	7	6	5	4	3	2	1	0
Setting	Digital zero	Zero balance displacement	Switch sensor		Switch work			
			MSB	LSB	MSB			LSB

Clear peak/bottom
Clear peak and bottom load values.

Prevent touchscreen operation
Disable touchscreen operation while this is ON.

Enable/disable judgment output
Disable all judgment output while this is ON.

Force backlight lighting
Enable the backlight while this is ON.

Switch zone
This is enabled when ZONE SWITCHING is set to EXT. INPUT. While ON, it becomes zone. Switching is limited to zones that have zone judgment enabled.

Clear results (reset measurement results)
Judgment results are cleared at the moment this becomes ON.
All judgment output is turned OFF, and continuous judgment (CONTINUE) starts.

Start/stop measurement
When "MEASURE. START. COND." or "MEASURE. STOP.COND." is set to "EXT. SIGNAL" on the WORK settings screen, this controls starting and stopping measurement.
Select the control method with EXT. START/STOP.
When set to "EDGE", measurement will start or stop when it switches from OFF to ON.
When set to "LEVEL", measurement will start when it switches to ON and stop when it switches to OFF.

Digital Zero
Digital zero is executed at the moment this becomes ON.

Zero balance displacement
The displacement sensor is zero-balanced at the moment this becomes ON.

ATTENTION

Bits 6 – 15 cannot be controlled from control signal input terminals at the same time. To use control by communication, set "CONTROL INPUT" on the FIELD NETWORK settings screen to "COMM."

Switch sensor
Switch the sensor memory to the specified number.

ATTENTION!

To enable sensor switching, set MEMORY CONTROL to "ALLOW" (page 6).

Switch work
Use to switch to the specified work number.
WORK SWITCHING 1 is the LSB and WORK SWITCHING 8 is the MSB.

ATTENTION!

Make the following settings to enable work switching.

- CONTROL INPUT on the FIELD NETWORK settings screen: COMM.
- MEMORY CONTROL on the FIELD NETWORK settings screen: ALLOW
- WORK SWITCHING on the WORK settings screen: EXT. INPUT

2-4. Message communication (setting commands)

Parameters used by all commands

Read: Get Attribute Single (0Eh)
Write: Set Attribute Single (10h)
Class (Hex): 0A2h
Attribute: 05h
By designating each command number in an instance when communicating messages, the desired parameters can be read and written.

NOTE

If values other than parameters are set, they will be ignored.

System

Content	Command	Command No.	Byte	Parameter	Note
System	Device name	5010	16	"TD-9000T "	ASCII
	Firmware version	5020	6	"X.XX "	ASCII
	Backlight setting (LCD BRIGHTNESS)	5301	1	0 to 3	
	Backlight time	5302	1	0 to 255	
	Language	5303	1	0: Japanese, 1: English, 2: Chinese, 3: Korean	
	Home Screen	5304	1	0: value display, 1: waveform display	
	OK counter	5410	4	100: Reset	64 in hexadecimal display
	NG counter	5411	4	100: Reset	64 in hexadecimal display
	Device number	5500	4		
	Beep	5501	1	0: OFF 1: KEY 2: KEY + JUDGE	
	External measurement signal mode (EXT. START/ STOP)	5502	1	0: Edge, 1: Level	
Date & time setting	Format	5503	1	0: YYYY-MM-DD 1: DD-MM-YYYY 2: MM-DD-YYYY	
	Date & time setting	5506	6	YYMMDDHHMMSS(BCD)	For example, 14:20:30 on May 20, 2021 shown as 210520142030
Locking	Lock calibration values (CALIBRATION LOCK)	5201	1	0: Unlock, 1: Lock	
	Lock work (WORK LOCK)	5202	1	0: Unlock, 1: Lock	
	Lock all (ALL LOCK)	5203	1	0: Unlock, 1: Lock	
	Lock touchscreen	5204	1	0: Unlock, 1: Lock	
Internal memory	Save results (SAVING)	5400	1	0: NO 1: AUTO SAVE 2: SAVE ON ERROR	
	Overwrite (OVERWRITING)	5401	1	0: Forbid, 1: Allow	
	Delete all	5402	4	100: Execute	

Content	Command	Command No.	Byte	Parameter	Note
Trigger output 1	Output item	5510	1	0: None, 1: Load, 2: Displacement, 3: OK count, 4: NG count	
	Load output threshold (HI)	5511	4	±99999	
	Load output threshold (LO)	5512	4	±99999	
	Displacement output threshold (HI)	5513	4	±99999	
	Displacement output threshold (LO)	5514	4	±99999	
	OK count threshold	5515	4	0 to 99999	
	NG count threshold	5516	4	0 to 99999	
Trigger output 2	Output item	5520	1	0: None 1: Load 2: Displacement 3: OK count 4: NG count	
	Load output threshold (HI)	5521	4	±99999	
	Load output threshold (LO)	5522	4	±99999	
	Displacement output threshold (HI)	5523	4	±99999	
	Displacement output threshold (LO)	5524	4	±99999	
	OK count threshold	5525	4	0 to 99999	
	NG count threshold	5526	4	0 to 99999	
SD card	Automatic saving (AUTO SAVE)	5600	1	0: NO 1: AUTO SAVE 2: SAVE ON ERROR	
	Format	5601	1	1: Execute	
	Export settings	5602	1	1: Execute	
	Import settings	5603	1	1: Execute	
	Maximum number of files (MAX NUMB OF FILES)	5605	1	0 (no maximum) – 5000	
	Folder for saving results (RESULTS SAVE FOLDER)	5606	1	0: ROOT, 1: WORK	
Serial communication (SERIAL COMM.)	Port selection	5700	1	0: Front USB (USB), 1: Back D-sub (D-SUB)	
	Communication mode	5702	1	0: TD format 1: TD format (BCC) 2: Continuous TX 3: Send results	
	Baud rate	5703	1	0: Reserved 1: 9600 2: 19200 3: 38400 4: 57600 5: 115200	
	Bit length	5704	1	0: 8-bit, 1: 7-bit	
	Parity bit	5705	1	0: No, 1: Odd, 3: Even	
	Stop bit	5706	1	0: 1-bit, 1: 2-bit	
	Delimiter	5707	1	0: CR+LF, 1: CR	

Field network

Content	Command No.	Byte	Parameter	Note
Control signal input (CONTROL INPUT)	5710	1	0: Control terminal (CONT. TERMINAL), 1: Communication control (COMM.)	
MEMORY CONTROL	5711	1	0: Forbid, 1: Allow	

Calibration

Content	Command	Command No.	Byte	Parameter	Note
Sensor	Sensor memory	1000	1	0: Sensor Memory 1, 1: Sensor Memory 2, 2: Sensor Memory 3, 3: Sensor Memory 4	
	Sampling	1006	1	0: 5 kHz, 1: 25 kHz	
	Y axis	1007	1	0: Load, 1: Load and displacement	
	X axis	1008	1	0: Time, 1: Displacement	
	X axis full scale	1009	1	0:80 ms, 1: 170 ms, 2: 400 ms, 3: 800 ms, 4: 2.0 s, 5: 4.0 s, 6: 10.0 s, 7: 30.0 s, 8: 60.0 s, 9: 90.0 s	The definitions change according to the X axis setting (time/ displacement).
	Unit shown setting	1401	1	0: None, 1: N, 2: kN, 3: kPa, 4: MPa, 5: g, 6: kg, 7: ton, 8: mNm, 9: Nm, 10: kNm, 11: dN, 12: Pa, 13: mBar, 14: Bar, 15: s2, 16: Gal, 17: mm	
	Maximum display value (MAX. DISP. VALUE)	1404	4	1 to 99999	
	Sensor input logic	1405	1	0: Standard, 1: Reversed	
	Low-pass filter	2001	1	0: OFF, 1: 3 Hz, 2: 10 Hz, 3: 30 Hz, 4: 100 Hz, 5: 300 Hz, 6: 1000 Hz	
	Moving average number (MOVING AVG. NUM.)	2002	2	0: Disabled, 2 to 2048: Moving average number	
	Automatic digital filter (AUTO DIGITAL FILTER)	2003	1	0: OFF, 1: ON	
	Digital zero limit (D/Z LIMIT SETTING)	2302	4	00000 to 99999	
	Digital offset	2303	4	±19999	
Load cell	Bridge voltage	1001	1	0: 2.5 V, 1: 5 V, 2: 10 V	
	Load decimal point position	1002	1	0: None, 1: 0.0, 2: 0.00 3: 0.000, 4: 0.0000	
	Zero point input calibration	1003	4	−3200 to +3200, (−3.200 to 3.200 mV/V)	
	Zero balancing	1004	1	1: Execute	
	Remote sensing	1005	1	0: Unused, 1: Used	
	Reset zero balancing	1100	1	1: Execute	
	Rated output value (RATED OUTPUT)	1101	4	100 to 3200, (0.100 to 3.200 mV/V)	
	Rated capacity value (equivalent input)	1102	4	1 to 99999	
	Rated capacity value (actual load)	1103	4	1 to 99999	
	TEDS calibration (TEDS CALIB.)	1104	1	1: Execute	

Content	Command	Command No.	Byte	Parameter	Note
Linearization	Enable/disable linearization	1200	1	0: Disabled, 1: Enabled	
	Select linearization point	1201	1	1 to 5	The point designated by this can be changed with the following commands.
	Selection point enabled/ disabled	1202	1	0: Disabled, 1: Enabled	
	Sensor output value for calibration point	1203	4	4-digit sensor output value (no decimal) (0 < setting value < rated output value)	Setting this value will calculate the load value from the current calibration value and make it the default output load value for the calibration point.
	Output load value for calibration point (equivalent input)	1204	4	±99999	An error will result if the difference with the default value is 5% or more.
	Output load value for calibration point (actual load input	1205	4	±99999	
D/A	D/A output setting	1301	1	0: Voltage, 1: Current	
	D/A max. voltage	1302	1	1 to 10	
	D/A Zero	1303	4	±99999	
	D/A full scale	1304	4	±99999	
TEDS sensor	Serial number	6001	4		BCD
	Maximum rated capacity	6002	4		BCD (highest byte is decimal point position)
	Maximum rated output	6003	4		BCD (highest byte is decimal point position)
	Sensor impedance	6004	4		BCD (highest byte is decimal point position)
	Max. excitation level	6005	4		BCD (highest byte is decimal point position)
	Calibration date (CAL. DATE)	6006	4		BCD
	Model number	6007	2		BCD
Displacement sensor	Reset zero balancing (voltage)	1500	1	1: Execute	
	Unit shown	1501	1	1: µm, 2: mm, 3: cm, 4: m, 5: rad, 6: deg, 0: None	
	Input mode	1502	1	0: Pulse, 1: Voltage	
	Sensor input logic	1503	1	0: Standard, 1: Reversed	
	Zero balancing	1504	1	1: Execute	
	Displacement decimal point position	1505	1	0: None, 1: 0.0, 2: 0.00 3: 0.000, 4: 0.0000	

Content	Command	Command No.	Byte	Parameter	Note
Pulse displacement sensor	Count number (higher 2 digits)	1600	4	Higher 2 digits (0–15)	Always set from higher.
	Count number (lower 6 digits)	1601	4	Lower 6 digits (000000 to 999999)	1–15000000 range with higher
	Display value (equivalent input)	1602	4	00001 to 99999	
	Display value (actual load)	1603	4	00001 to 99999	
	Zero position	1604	4	±99999	
	Moving average number (MOVING AVG. NUM.)	1605	2	0: Disabled, 2 to 2048: Moving average number	
	Output phase (AB, A)	1606	1	0: AB phase, 1: A phase	
Voltage displacement sensor	Rated output	1610	4	100–5200 (0.100–5.200 V)	
	Display value (equivalent input)	1612	4	00001 to 99999	
	Display value (actual load)	1613	4	00001 to 99999	
	Zero position	1614	4	±99999	
	Moving average number (MOVING AVG. NUM.)	1615	2	0: Disabled 2 to 2048: Moving average number	
	Low-pass filter	1616	1	0: 10 Hz, 1: 30 Hz, 2: 100 Hz, 3: 300 Hz	

Waveform display

Content	Command No.	Byte	Parameter	Note
Waveform reference (0 OF X AXIS)	1010	1	0: Head, 1: Tail	
Graph scale X axis start	1011	4	±99999	
Graph scale X axis end	1012	4	±99999	
Graph scale Y axis start	1013	4	±99999	
Graph scale Y axis end	1014	4	±99999	

Work

Content	Command	Command No.	Byte	Parameter	Note
Work	Work number	7000	1	1 to 16 (enabled only during manual selection)	
	Switch work (WORK SWITCHING)	7001	1	0: Manually, 1: External input (EXT. INPUT)	
	Copy work	7002	1	0: All, 1–16: Work number	

Content	Command	Command No.	Byte	Parameter	Note
Measurement trigger	Measurement starting condition	7003	1	0: EXT. SIGNAL, 1: EXT. & LOAD, 2: EXT. & DISP, 3: LOAD ↑, 4: LOAD ↓, 5: DISPLACE. ↑, 6: DISPLACE. ↓	
	Measurement starting level	7004	4	±99999	
	Measurement stopping condition	7005	1	0: EXT. SIGNAL 1: EXT. or LOAD (EXT. | LOAD) 2: EXT. or DISP.(EXT. | DISP.) 3: EXT. or TIME (EXT. | TIME) 4: EXT. or DISP STP (EXT | DISP STP)	
	Measurement stopping level	7006	4	±99999	
Continuous judgment	Enable HHLL (HH/LL ON)	7010	1	0: Disabled, 1: Enabled	
	HH	7011	4	±99999	
	HI	7012	4	±99999	
	LO	7013	4	±99999	
	LL	7014	4	±99999	
	Hold mode	4001	1	0: Disabled, 1: Sample, 2 :Peak, 3: Bottom, 4: Peak to peak	
Band judgment	Enable/Disable waveform comparison (WAVEFORM COMP.)	7100	1	0: Disabled, 1: Enabled	If no reference waveform has been set, it will not become enabled.
Zone judgment	Zone switching	7101	1	0: Preset, 1: External input	
	Indicator value display (INDICATOR VALUE)	7102	1	0: Input value, 1 to 5: Zone number	
Zone settings	Set zone number	7200	1	1 to 5 (resets to 1 when power turned on/off)	The zone set by this can be changed with the following commands.
	Enable zone	7201	1	0: Disabled, 1: Enabled	
	Zone range starting point	7202	4	0 to 99999	
	Zone range ending point	7203	4	0 to 99999	
	Load high limit (HI)	7204	4	±99999	
	Load low limit (LO)	7205	4	±99999	
	Displacement high limit (HI)	7206	4	0 to 99999	This can be set when the X axis is set to displacement.
	Displacement low limit (LO)	7207	4	0 to 99999	
	Judgment method	7208	1	0: Constant comparison, 1: Sample, 2: Peak, 3: Bottom, 4: Peak-to-peak, 5: Average value, 6: Maximum, 7: Minimum, 8: Inflection point	
Maximum/ minimum	Load difference (LOAD DIF.)	7211	4	±99999	
	Scaling factor	7212	1	01 to 99 (input without decimal point) (0.1 to 9.9)	Values higher than 9.9 automatically rounded to 9.9.
	Number of detections (COUNT)	7213	1	1 to 10	Values higher than 10 automatically rounded to 10.
Inflection point (INFLECTION)	Detection starting load (STARTING LOAD)	7220	4	±99999	
	Detection extent A (WIDTH A)	7221	4	1 to 9999	
	Detection extent B (WIDTH B)	7222	4	1 to 9999	
	Load difference (LOAD DIF.)	7223	4	±99999	
	Offset extent (OFFSET)	7224	4	0 to 99	

Message communication (measurement data commands)

Content	Command	Command No.	Service	Transmitted data (in word* units)					
Zone display	Zone 1	300	R	Start pos	End pos	Load(Lo)	Load(Hi)	Disp(Lo)	Disp(Hi)
	Zone 2	301	R	Start pos	End pos	Load(Lo)	Load(Hi)	Disp(Lo)	Disp(Hi)
	Zone 3	302	R	Start pos	End pos	Load(Lo)	Load(Hi)	Disp(Lo)	Disp(Hi)
	Zone 4	303	R	Start pos	End pos	Load(Lo)	Load(Hi)	Disp(Lo)	Disp(Hi)
	Zone 5	304	R	Start pos	End pos	Load(Lo)	Load(Hi)	Disp(Lo)	Disp(Hi)
Measurement waveform	Measurement range	305	R	Start pos	End pos				
	Load measurement waveform (load)	310 to 319	R	1 block = 224 words* (10 blocks total)					
	Load measure-ment waveform (displacement)	320 to 329	R	1 block = 224 words* (10 blocks total)					
	Load measurement time	330 to 339	R	1 block = 224 words* (10 blocks total)					
Band waveform	Band waveform range	306	R/W	Start pos	End pos				
	Load band waveform (low limit)	350 to 359	R/W	1 block = 224 words* (10 blocks total)					
	Load band waveform (high limit)	360 to 369	R/W	1 block = 224 words* (10 blocks total)					

- Start pos and End pos units are not physical units. They are dot positions on the X axis. Values are in the image range (0–2239) on the X axis.

*1 word is 2 bytes (little-endian)

NOTE

If there is no band waveform, issuing a band waveform range command (306) will generate the fundamental band waveform of the XY axis at full scale regardless of the parameter.

Transmission of measurement and band waveforms

The maximum amount of data is 2240 for measurement and band waveforms.
To send data, divide all data into 10 parts, and send 224 data with a single command number.
Use measurement range (305) and band waveform range (306) commands, and look up necessary data ranges.

Waveform data

Excluding decimal points, send indicator values as 2-byte binary data for each single data unit.
Look up the decimal point position with load decimal point position (1002) and displacement decimal point position (1505).

Command No.

Transmitted data blocks are designated by the lowest digit of each load waveform command.

xx0 : Data from 0 to 223 (block 1)
xx1 : Data from 224 to 447 (block 2)
:
xx9 : Data from 2016 to 2239 (block 10)

Data transmission example

Load measurement waveform (load) (310) response example

Byte	0	1	2	3	4	5	...	444	445	446	447
HEX											
ASCII	×	×	×	×	×	×		×	×	×	×

Load value (not including decimal point)

Load value (not including decimal point)

Common error codes

Error code	Content
0x05	The path designation is unknown (Class, Instance).
0x08	The service is not supported.
0x0E	The attribute cannot be set.
0x10	The currently requested service cannot be executed.
0x13	The data quantity is insufficient.
0x15	The data quantity is excessive.
0x2C	The attribute cannot be acquired.

3. Setting lists

3-1. Setting value list

Item	Setting	Format	Default value	Setting range/options
FIELD NETWORK	CONTROL INPUT	Selection	CONT. TERMINAL	CONT. TERMINAL, COMM.
	MEMORY CONTROL	Selection	FORBID	FORBID, ALLOW
EtherNet/IP™	IP ADDRESS	Input	192.168.0.10	0.0.0.0 to 255.255.255.255
	SUBNET MASK	Input	255.255.255.0	0.0.0.0 to 255.255.255.255
	DHCP	Selection	ENABLE	ENABLE, DISABLE

ATTENTION!

Conducting an operation with the screen, including starting/stopping measurement and switching sensors or work memories, at the same time that an operation is executed by communication could cause unpredictable malfunction. For this reason, we recommend prohibiting making changes on screen during communication.

NOTE

MEMORY CONTROL sets whether to allow or prohibit control of sensor numbers and work numbers by implicit communication.

3-2. Serial communication

Read the unit operation manual for details about serial communication protocol.

3-2-1. Field network

Content	Command No.	Default value	Setting item	Note
Control signal input	5710	0: Control terminal (CONT. TERMINAL)	0: Control terminal (CONT. TERMINAL), 1: Communication control (COMM.)	6 characters sent and received by ASCII
Memory control	5711	0: Forbid	0: Forbid, 1: Allow	6 characters sent and received by ASCII

3-2-2. EtherNet/IP™

Content	Command No.	Default value	Setting item	Note
DHCP	5720	1: Enabled	0: Disable, 1: Enabled	6 characters sent and received by ASCII
IP address	5721	192.168.0.10	000.000.000.000 to 255.255.255.255	12 characters sent and received by ASCII (excluding dots)
Subnet mask	5722	255.255.255.0	000.000.000.000 to 255.255.255.255	12 characters sent and received by ASCII (excluding dots)

ATTENTION

Restart the power after changing EtherNet/IP™ settings.

Note

"Field network" and "EtherNet/IP" setting commands will be disabled if the corresponding options are not installed.

EtherNet/IP™ communication specifications

Transmission type	10BASE-T/100BASE-TX
Transmission speed	10/100 Mbps
Communication distance	100 m or less between nodes
Transmission cable	STP cable that is category 5/5e or higher
Topology	Star, line, tree
Maximum number of connected units	No limit

General

Weight About 1,040 g

- Specifications and appearance are subject to change without notice.
- Weight and dimensions are approximate.
- Illustrations in this manual might differ slightly from production models.

TEAC

Download the latest version of the IFU from the website link below.
https://loadcell.jp/en/support/downloads/

TEAC CORPORATION	1-47 Ochiai, Tama-shi, Tokyo 206-8530, Japan	Phone: +81-42-356-9154
TEAC AMERICA, INC.	10410 Pioneer Blvd. Unit #3, Santa Fe Springs, CA 90670, U.S.A.	Phone: +1-323-726-0303
TEAC EUROPE GmbH. (EU Importer)	Bahnstrasse 12, 65205 Wiesbaden-Erbenheim, Germany	Phone: +49-(0)611-7158-349
TEAC UK Limited (UK Representative)	Luminous House, 300 South Row, Milton Keynes, Buckinghamshire, MK9 2FR, UK	Phone: +44-1923-797205
TEAC SALES & TRADING (ShenZhen) CO., LTD.	Room 817, Xinian Center A, Tairan Nine Road West, Shennan Road, Futian District, Shenzhen, Guangdong Province 518040, China	Phone: +86-755-88311561-2

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