

TMC SPECIFICATION

NO. S 10142

REV: A

COMPILED:

CHECKED:

APPD:

SHEET 1 OF 4

TITLE:

KIT 278

Typed by edb

INSTALLATION INSTRUCTIONS FOR KIT 278

USED WITH TRANSMITTER/RECEIVER TTR-10, 11

S10142

PURPOSE: To modify a TTR-10 or 11 from manual control to remote control.

PARTS REQUIRED: The parts required and supplied with this kit are listed in the table below:

<u>ITEM No.</u>	<u>REF SYMBOL</u>	<u>TMC PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY/KIT</u>
1	S1515	AS10005	ROTARY SOLENOID SWITCH ASSY(LEDEX)	1
2		PX 337-11	INSULATION, TERMINAL BOARD	1
3	TB1502	TM100-11	TERMINAL BOARD	1
4		TE104-1	TERMINAL LUG #4	2
5		SCBP0440BN10	SCREW MACHINE	4
6		NTH0440BN8	NUT HEX PLAIN	4
7		LWE04MRN	WASHER LOCKING	4
8		MS154-1	PLATE MOUNTING TERM. BOARD	2
9		NP362-46	NAME PLATE	1
10		MWC20(7)U0	WIRE ELECT INSULATED	6 in.
11		MWC20(7)U7	WIRE ELECT INSULATED	21 in.
12		CK659	SCHEMATIC, AX413	1
13		CK10457	SCHEMATIC, AX418	1
14		CK1079	SCHEMATIC, INTERCONNECT	1
15		AS10005	DRAWING, SWITCH ASSY. LEDEX	1

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INSTALLATION PROCEDURE FOR TTR-10

1. Remove bottom cover from the TTR-10.
2. Remove four machine screws holding the CW oscillator board A3278 and swing out board. Retain screws and washers for re-installation.
3. Remove four machine screws, nuts and washers that hold the blanking plate MS4167. Discard blanking plate but retain hardware.
4. Remove four machine screws, nuts and washers holding the detent mounting plate LD1644A/MS4113. Retain the hardware for use in Step 5. Remove one half of the shaft coupling MC131 from the detent shaft. Discard the detent and mounting plate but retain MC131 for use in Step 5. Before mounting Ledex into chassis, check to make sure that the rotary wiper blade of the second wafer (rear) is at pin 12. This is channel one position.
5. Slip coupling MC131 over the shaft of AS10005 (Item 1). Care should be taken when fitting so as not to damage the wafer pins and attached leads. Ledex motor leads are fed through a hole located to the left of the ledex switch when viewed from the rear, ensuring that the motor wires sleeving is through the hole to insulate the leads from the chassis. Before securing the ledex, solder one motor lead to pin #3 section 1 front of the control wafer. The other motor lead is left unconnected at this point. The ledex can now be secured using four 6-32 screws and lock washers removed in Step 4.

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INSTALLATION PROCEDURE FOR TTR-10 con't

6. Engage coupling MC131 with its matching half on the channel changing shaft, making sure that channel 1 on the ledex is aligned with channel 1 on the front panel control. Tighten allen set screws.
7. Mount Terminal Board (Item 3) using hardware items No. 4, 5, 6, 7 and 8. Item 4 is used under the top nuts when mounting 3. Connect wiring from the ledex to item 3 as indicated by the marker tags on the leads. Remove the marker tags after soldering and slide the heat shrink tube over the terminals and shrink into place.
8. Using wire item 10, ground pins 1 and 6 of item 3. Connect the unconnected ledex motor lead to pin 1 of item 3. Solder in place.
9. Remove Power Supply AX413 held by four 10-32 screws near handles. Remove two screws near TB1500 supporting frame of board A3222. Swing out board A3222 exposing rear of J1500. Remove two screws and nuts securing J1500 and ground leads. Remove and turn J1500 to expose empty pin 2. Strip and solder Item 11 between pin 2, J1500 and pin 11 (Item 3). Route wire along main cable harness. Push J1500 back into place being careful not to damage wires. Bottom ground lug and hardware is easily replaced. Top ground lug may be repositioned under screw of K1502 as it will be difficult to secure in original position. Dress all wires away from screws or sharp edges. Replace board A3222 and AX413.

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INSTALLATION PROCEDURE FOR TTR-10 con't

10. Replace the CW oscillator board and change the TTR-10 name plate for TTR-12 name plate (Item 9).
11. Replace bottom cover. Modification now completed.

INSTALLATION PROCEDURE FOR TTR-11

1. When modifying a TTR-11 omit steps 3, 4, 8 and 9. Proceed as follows:

After step 2 remove four machine screws, nuts and washers holding the detent mounting plate. Retain this hardware for re-installation. Unsolder wires from pins 7, 8, 9 and 10 of TB1502 terminal board. Remove detent and switch, retaining the half coupling MC131 to be used in Step 5. Continue with the above procedure starting at Step 5.

NOTE

Drawing AS1005 is included in this Kit to identify the leads and terminals on the ledex motor and switch.

INSTALLATION INSTRUCTIONS FOR KIT 278
USED WITH TRANSMITTER/RECEIVER TTR-10, 11

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PARTS REQUIRED: The parts required and supplied with this kit are listed in the table below:-

ITEM No.	REF SYMBOL	TMC PART NUMBER	DESCRIPTION	QTY/KIT
1	S1515	AS10005	ROTARY SOLENOID SWITCH ASSY (LEDEX)	1
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3	TB1502	TM100-11	TERMINAL BOARD	1
4		TE104-1	TERMINAL LUG #4	2
5		SCBFO44OBN10	SCREW MACHINE	4
6		NTHO44OBN8	NUT HEX PLAIN	4
7		LWEO4MRN	WASHER LOCKING	4
8		MS154-1	PLATE MOUNTING TERM. BOARD	2
9		NP362-46	NAME PLATE	1
10		MWC20(7)U0	WIRE ELECT INSULATED	6 in.
11		MWC20(7)U7	WIRE ELECT INSULATED	21 in.

The following schematic diagrams are included in this kit -- CK1079, Interconnect Diagram; CK10457, Schematic AX418 and CK659, Schematic AX413.

INSTALLATION PROCEDURE FOR TTR-10

1. Remove bottom cover from the TTR-10.
2. Remove four machine screws holding the CW oscillator board A3278 and swing out board. Retain screws and washers for r -installation.

3. Remove four machine screws, nuts and washers that hold the blanking plate MS4167. Discard blanking plate but retain hardware.

4. Remove four machine screws, nuts and washers holding the detent mounting plate LD1644A/MS4113. Retain the hardware for use in Step 5. Remove one half of the shaft coupling MC131 from the detent shaft. Discard the ~~detent~~ and mounting plate but retain MC131 for use in Step 5. Before mounting Ledex into chassis, check to make sure that the rotary wiper blade of the second wafer (rear) is at pin 12. This is channel one position.

5. Slip coupling MC131 over the shaft of AS10005 (Item 1). Care should be taken when fitting so as not to damage the wafer pins and attached leads. Ledex motor leads are fed through a hole located to the left of the ledex switch when viewed from the rear, ensuring that the motor wires sleeving is through the hole to insulate the leads from the chassis.

Before securing the ledex, solder one motor lead to pin #3 section 1 front of the control wafer. The other motor lead is left unconnected at this point. The ledex can now be secured using four 6-32 screws and lock washers removed in Step 4.

6. Engage coupling MC131 with its matching half on the channel changing shaft, making sure that channel 1 on the ledex is aligned with channel 1 on the front panel control. Tighten allen set screws.

7. Mount Terminal Board (Item 3) using hardware items No. 4,5,6,7 and 8. Item 4 is used under the top nuts when mounting 3. Connect wiring from the ledex to item 3 as indicated by the marker tags on the leads. Remove the marker tags after soldering and slide the heat shrink tube over the terminals and shrink into place.

8. Using wire item 10, ground pins 1 and 6 of item 3. Connect the unconnected ledex motor lead to pin 1 of item 3. Solder in place.