APTER POWER FIELD WORKBOOK

INSTALLATION | APPLICATION | VERIFICATION

9771-210

16-Point User-Configurable Current Input Panel

CONTROLLED ENGINEERING COPY

Set W17 and point jumpers for the exact input module and sharing design, then verify transmitter supply, shunt conversion, loop scaling, and safety/control segregation.

INSTALLATION IDENTITY	REQUIRED VALUE
Complete model	9771-210
Manufacturer part	9771-210
Hardware type	Current input; user-configurable
System family	Tricon v9-v10 analog input termination

1 PLAN — 2 ISOLATE — 3 CONNECT — 4 CONFIGURE — 5 TEST

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01 PRE-INSTALLATION PLAN

1. Verify 9771-210, the input-module model, and the approved jumper drawing before work.
2. Isolate both 24 VDC transmitter supplies and the affected safety input functions.
3. Record every W point jumper and W17 position before removing the panel.
4. Retain W17 for 3700A or 3721 service; apply the documented 3703E rule when extended common mode is required.
5. Do not share a transmitter with another system unless the safety/control segregation review permits it.

MATCHED HARDWARE

- 3700, 3700A, 3703E, or 3721 analog-input module
- 4000103-510 I/O cable
- redundant 24 VDC transmitter supplies
- 4-20 mA transmitters and shielded loop wiring

INSTALLATION CONTROL RECORD

CONTROL ITEM	REQUIRED RECORD
Identity	9771-210 / 9771-210 recorded
Physical interface	3700, 3700A, 3703E, or 3721 analog-input module
Companion check	4000103-510 I/O cable
Functional proof	Converts sixteen field current loops into precision voltage inputs through 250-ohm shunts
Application test	Redundant-powered process transmitter termination

02 WIRING & INTERFACE CHECKS

CHECK ITEM	REQUIRED VALUE
Panel type	Current input; user-configurable
Input points	16
Supported module ranges	0-5 VDC; 0-10 VDC; -5 to +5 VDC
Field signal example	4-20 mA
Positive-terminal resistor	180 Ohm series
Input shunt	250 Ohm precision
Current conversion	0-5 VDC
Power sources	Redundant 24 VDC
Power combining	Diode ORing
Compatible modules	3700; 3700A; 3703E; 3721
Panels for 32-point module	2
W17 with 3700A / 3721	Installed
W17 for extended 3703E common mode	Removed
Panel width	4.5 in (11.43 cm)

FIELD NOTE

Set W17 and point jumpers for the exact input module and sharing design, then verify transmitter supply, shunt conversion, loop scaling, and safety/control segregation.

03 COMMISSIONING WORKFLOW

1. Confirm 9771-210 and part number 9771-210 against the installed record.
2. Verify the physical connection to 3700, 3700A, 3703E, or 3721 analog-input module.
3. Apply the documented technical values for panel type.
4. Exercise the function: converts sixteen field current loops into precision voltage inputs through 250-ohm shunts.
5. Run a controlled test for redundant-powered process transmitter termination.
6. Record the final state, diagnostics and operator acceptance before release.

COMMISSIONING ACCEPTANCE EVIDENCE

EVIDENCE ITEM	ACCEPTANCE CONDITION
Identity	9771-210 / 9771-210 recorded
Physical interface	3700, 3700A, 3703E, or 3721 analog-input module
Companion check	4000103-510 I/O cable
Functional proof	Converts sixteen field current loops into precision voltage inputs through 250-ohm shunts
Application test	Redundant-powered process transmitter termination

04 RETURN-TO-SERVICE RECORD

- [ ] Preserve loop polarity, 250-ohm shunt path, and shield-ground practice.
- [ ] Measure transmitter supply and converted input voltage before enabling the channel.
- [ ] Prove scaling, alarm action, and any shared-system indication under controlled conditions.
- [ ] Confirm the intended process response before normal operation.

VERIFICATION RECORD

TECHNICIAN _____

DATE _____

CABINET / POSITION _____

FINAL DIAGNOSTIC STATE _____

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
Triconex 3504E	High-Density Digital Input Module	**Open product page**
Triconex 3008	Main Processor Module	**Open product page**
Triconex 4210	Remote Extender Module Set	**Open product page**
Triconex 4119A	Enhanced Intelligent Communication Module	**Open product page**

SOURCE IDENTIFIERS

Field Terminations Guide for Tricon v9-v10 Systems

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