

# APTER POWER FIELD WORKBOOK

INSTALLATION | APPLICATION | VERIFICATION

## 3500/77M 176449-07

### 3500/77M cylinder pressure monitor

CONTROLLED ENGINEERING COPY

Verify 3500/77M 176449-07, front/rear assembly pairing, transducer supply, channel scale and phase reference, firmware compatibility and rack slot before work; prove all four pressure waveforms and alarms after restart.

| INSTALLATION IDENTITY | REQUIRED VALUE                                    |
|-----------------------|---------------------------------------------------|
| Complete model        | 3500/77M 176449-07                                |
| Manufacturer part     | 3500/77M 176449-07                                |
| Hardware type         | 3500/77M 176449-07                                |
| System family         | 3500/77M reciprocating compressor pressure system |
| HS code               | 8537101190                                        |



#### APTER POWER SALES TEAM

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# 01 PRE-INSTALLATION PLAN

- 1

Verify the complete 3500/77M 176449-07 marking and its assigned 3500/77M reciprocating compressor pressure system position before work.
- 2

Place the connected recip compressor cylinder-pressure monitoring process in the approved maintenance state.
- 3

Isolate applicable power and four reciprocating-compressor cylinder pressure signals field energy before disconnecting conductors.
- 4

Record connector, conductor, address, firmware and software identities before removal.
- 5

Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies.

## MATCHED HARDWARE

- 3500 rack
- compatible cylinder-pressure transducers
- matched I/O module and field wiring
- 3500 Rack Configuration Software

## INSTALLATION CONTROL RECORD

| CONTROL ITEM       | REQUIRED RECORD                                  |
|--------------------|--------------------------------------------------|
| Identity           | 3500/77M 176449-07 / 3500/77M 176449-07 recorded |
| Physical interface | 3500 rack                                        |
| Companion check    | compatible cylinder-pressure transducers         |
| Functional proof   | Handles four dynamic pressure channels           |
| Application test   | Recip compressor cylinder-pressure monitoring    |

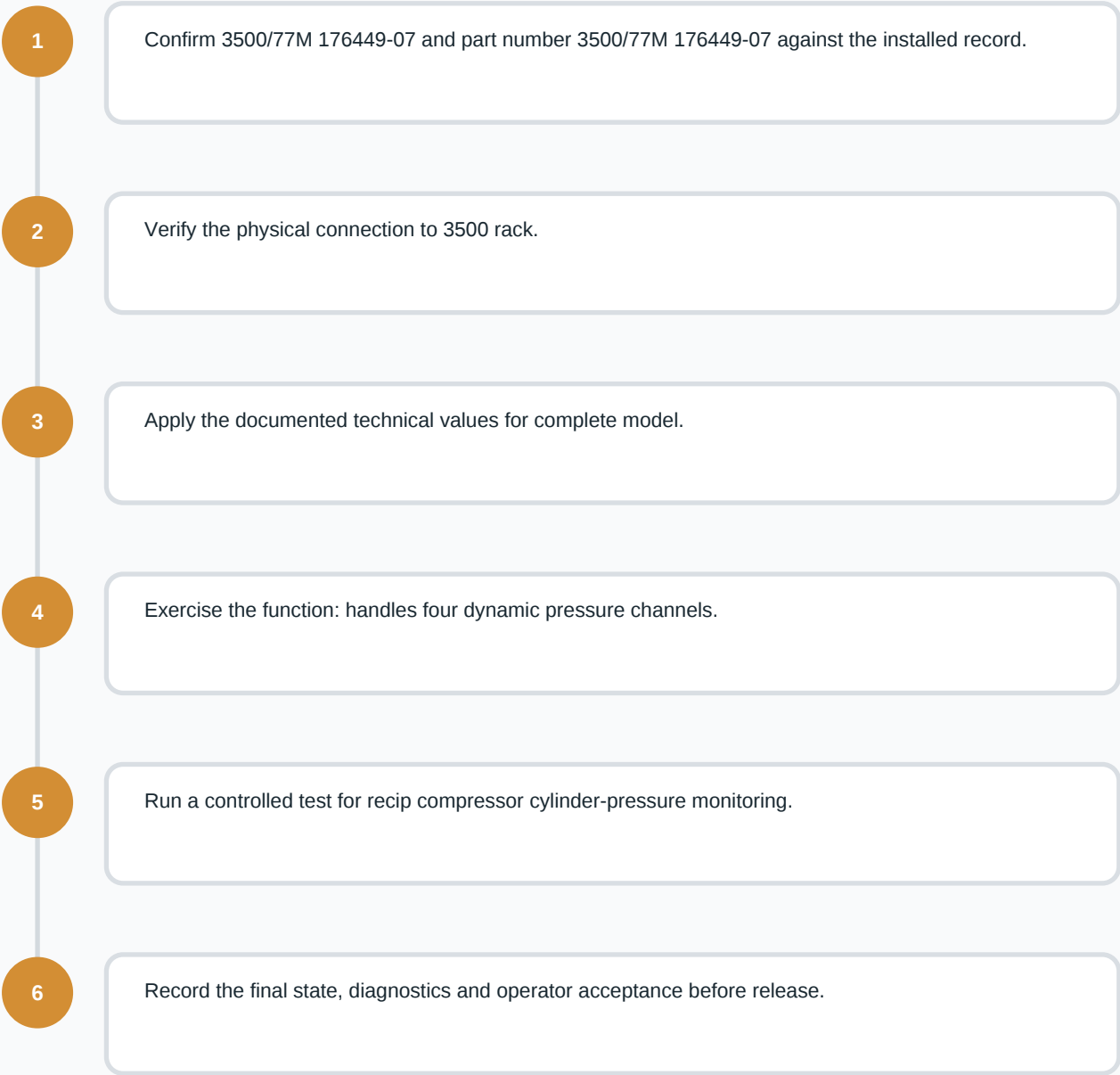
## 02 WIRING & INTERFACE CHECKS

| CHECK ITEM                         | REQUIRED VALUE      |
|------------------------------------|---------------------|
| Complete model                     | 3500/77M 176449-07  |
| Assembly                           | 176449-07           |
| Role                               | Monitor module      |
| Input channels                     | 4                   |
| Frequency response                 | 0 to 5.5 kHz        |
| Pressure accuracy at 25 degC       | +/-0.5%             |
| Pressure accuracy over temperature | +/-1%               |
| Power consumption                  | 7.8 W full load     |
| Buffered output impedance          | 550 ohm             |
| Transducer supply                  | +23 +/-0.8 V DC     |
| Current limit                      | 24.5 mA per channel |
| Operating temperature              | -30 to +65 degC     |
| Storage temperature                | -40 to +85 degC     |
| Humidity                           | 95%, noncondensing  |

### FIELD NOTE

Verify 3500/77M 176449-07, front/rear assembly pairing, transducer supply, channel scale and phase reference, firmware compatibility and rack slot before work; prove all four pressure waveforms and alarms after restart.

### 03 COMMISSIONING WORKFLOW



#### COMMISSIONING ACCEPTANCE EVIDENCE

| EVIDENCE ITEM      | ACCEPTANCE CONDITION                             |
|--------------------|--------------------------------------------------|
| Identity           | 3500/77M 176449-07 / 3500/77M 176449-07 recorded |
| Physical interface | 3500 rack                                        |
| Companion check    | compatible cylinder-pressure transducers         |
| Functional proof   | Handles four dynamic pressure channels           |
| Application test   | Recip compressor cylinder-pressure monitoring    |

## 04 RETURN-TO-SERVICE RECORD

- ☐
- Confirm the installed 3500 rack and compatible cylinder-pressure transducers against the approved project.
- ☐
- Restore power in a controlled sequence and review device, network and host diagnostics.
- ☐
- Prove the intended compressor performance analysis function and retain the final test result.
- ☐
- Confirm the intended process response before normal operation.

### VERIFICATION RECORD

|                     |                                                                       |
|---------------------|-----------------------------------------------------------------------|
| PRODUCT IDENTITY    | 3500/77M 176449-07                                                    |
| INSTALLED POSITION  | Documented 3500/77M reciprocating compressor pressure system position |
| VERIFICATION METHOD | Controlled inspection and functional test                             |
| RELEASE RECORD      | Final diagnostic state retained before service                        |

### RELATED PRODUCTS ON APTER POWER

| MODEL                                    | SYSTEM ROLE                                        | APTER POWER PAGE                                                   |
|------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------|
| Bently Nevada 21504 0000 012 05 02       | Related Bently Nevada machinery-monitoring product | <a href="#">View Bently Nevada 21504 0000 012 05 02 page</a>       |
| Bently Nevada 146054 08 05 02 05         | Related Bently Nevada machinery-monitoring product | <a href="#">View Bently Nevada 146054 08 05 02 05 page</a>         |
| Bently Nevada 146054 12 05 02 05         | Related Bently Nevada machinery-monitoring product | <a href="#">View Bently Nevada 146054 12 05 02 05 page</a>         |
| Bently Nevada 200152 15 00               | Related Bently Nevada machinery-monitoring product | <a href="#">View Bently Nevada 200152 15 00 page</a>               |
| Bently Nevada 330730 080 13 05           | Related Bently Nevada machinery-monitoring product | <a href="#">View Bently Nevada 330730 080 13 05 page</a>           |
| Bently Nevada 330180 X1 05 MOD 161255 02 | Related Bently Nevada machinery-monitoring product | <a href="#">View Bently Nevada 330180 X1 05 MOD 161255 02 page</a> |
| Bently Nevada 330180 X1 05 MOD 145004 66 | Related Bently Nevada machinery-monitoring product | <a href="#">View Bently Nevada 330180 X1 05 MOD 145004 66 page</a> |
| Bently Nevada 330801 28 04 105 00 02     | Related Bently Nevada machinery-monitoring product | <a href="#">View Bently Nevada 330801 28 04 105 00 02 page</a>     |

### SOURCE IDENTIFIERS

Bently Nevada 3500/77M Recip Cylinder Pressure Monitor Datasheet  
147485 Rev. Y

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