

BULLETIN #: 21M-03

SUPERSEDES: NEW
DATE: 10/25/2021
AUTHOR: C. Dahar

**SUBJECT: 74MM LonCem Module Obsolescence and Replacement**☐ TECHNICAL☒ MARKETING

Page 1 of 5

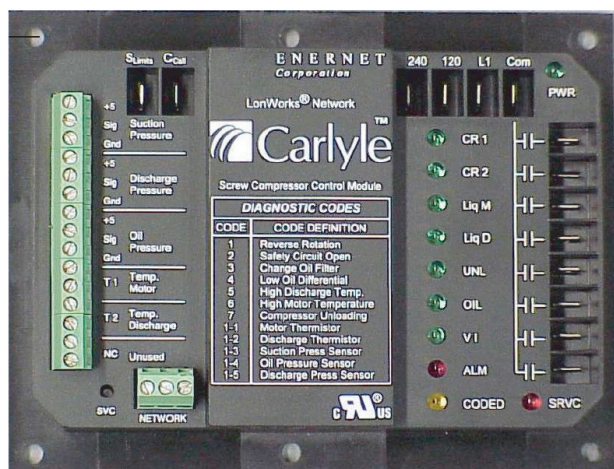
Products Affected: ☐ 06D ☐ 06E ☐ 06CC ☐ 06M ☐ 06U ☐ 06V
☐ 5F ☐ 5H ☐ 05G ☐ 05K
☒ 06TA/TR ☐ 06TS-TT-TU-TV

Description:

The Carlyle LonCem module controller kit, p/n 0TA1063 and 0TA1064, will no longer be offered by Carlyle OEM for the 74mm 06TA and 06TR screw compressor family. The Carlyle Control Module (CCM), currently used with the Paragon screw compressor family, has been upgraded to accommodate and work with the 74mm screw compressor to replace the functionality of the LonCem controller to monitor the compressor for temperature and pressure protection.

LonCem Module Kit: No Longer available:

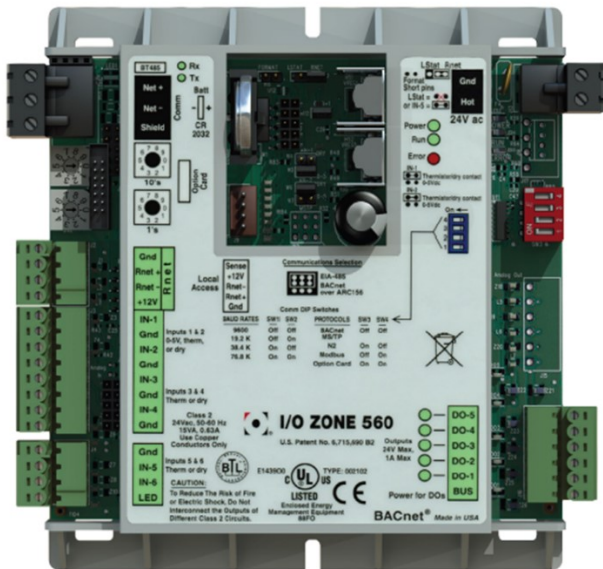
Item	0TA1063 Package with LonWorks (Quantity)	0TA1064 Package without LonWorks (Quantity)	Carlyle P/N	Description
1	1		3TA1061	LonCEM (with LonWorks Transceiver)
1		1	3TA1062	LonCEM (without LonWorks Transceiver)
2	1	1	HK05YZ003	Low Pressure Transducer (suction)
3	2	2	HK05YZ002	High Pressure Transducer (disch and oil)
4	3	3	06TA680007S**	Harness for Transducers (15 ft lead wire)
5	1	1	HH79NZ065	Discharge Temperature Thermistor (5 Kohm)
6	1	1	DD08SA051	SAE Discharge Adapter Fitting (1.3"L, 7/16"-20 SAE to 1/4" NPT)
7	1	1	DD08SA052	SAE Suction Adapter Fitting (3.7"L, 7/16"-20 SAE to 1/4" NPT)
8	2	2	DD17GA051*	Cross Fitting (suction and discharge)



Replacement/New Controller package for the 74mm Compressor:

The Carlyle Control Module (CCM) will provide the necessary compressor protection similar to the LonCem module for the following:

- Discharge temperature protection
- Oil filter differential pressure protection
- Unloader Control
- Vi Control
- Alarm codes



The following table of parts are required to support installing the CCM controller for 1 compressor installation.

Part required to support 1 compressor installation			
Item #	Part Number	Description	Qty
1	2BSB000928	Carlyle Control Module (CCM)	1
2	6BAB001611	Hardware Kit	1
3	06TA680007S	Pressure transducer wire harness	2
4	USB-L	Controller interface cable	1

Item #1:

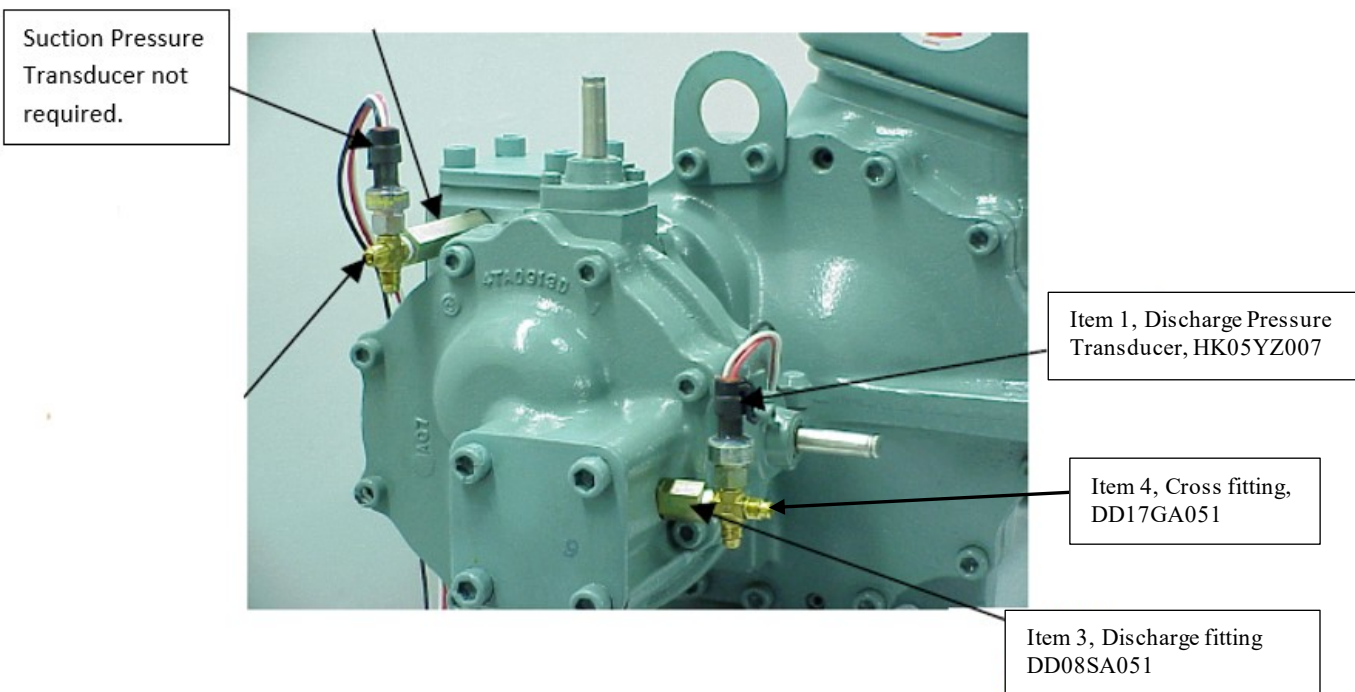
The Carlyle controller, as pictured above, comes with Carlyle specific software downloaded. The end-user will need to setup the controller by working through a few configuration steps. See application guide 575-012 for technical installation instruction at www.carlylecompressor.com under the 74mm screw compressor product line.

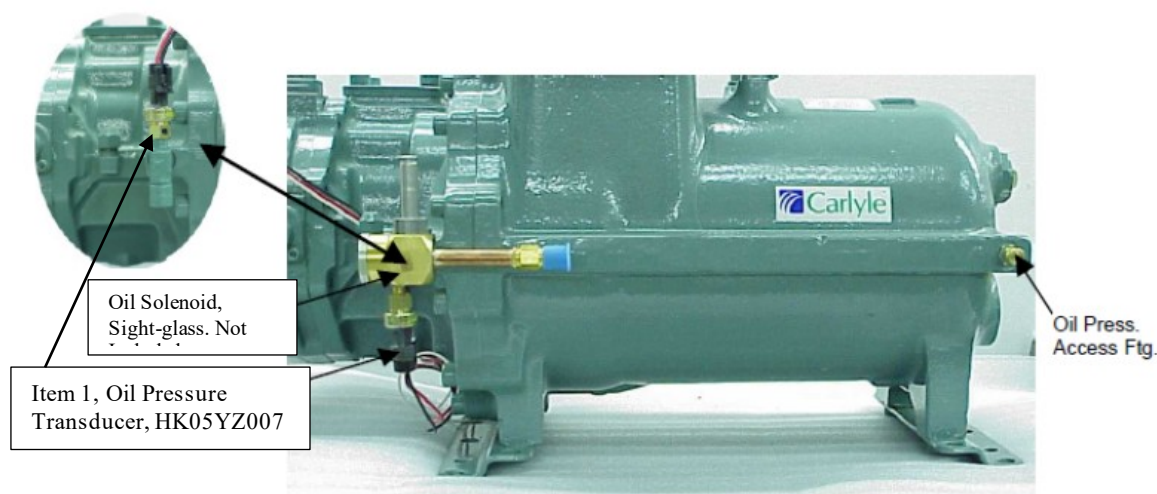
Item #2:

The 6BAB001611 consists of installation hardware similar to the LonCem for installing the oil and discharge pressure transducers. The suction pressure transducer is no longer required with the new CCM controller for the 74mm compressor. The suction pressure is a fixed constant value that is determined by the end-user and inputted as a setup parameter.

The 6BAB001611 accessory kit consists of the following parts:

- Item 1, p/n HK05YZ007, 5 vdc pressure transducer, discharge & oil pressure, qty 2
- Item 2, p/n HH79NZ065, Discharge temperature sensor, qty 1
- Item 3, p/n DD08SA051, Discharge fitting 7-16"-20 x 1/4" NPT x 1.3" LG, qty 1
- Item 4, p/n DD17GA051, Cross fitting, qty 1



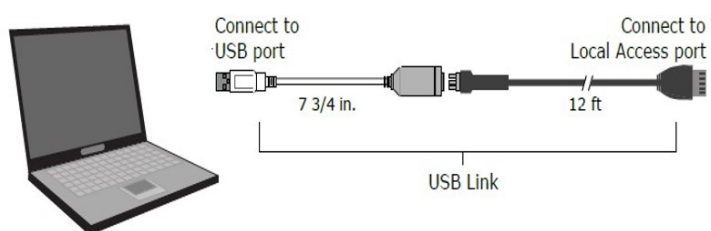
**Item #3:**

The 06TA680007S is the same 15-foot pressure transducer wire harness used with the LonCem module. Quantity two are required for the installation of the discharge pressure and oil pressure transducers.

Item #4:

To configure and setup the CCM controller and display controller inputs, outputs, and fault codes, the [Virtual BacView software](#) must be installed on a laptop. This software can be downloaded from www.carlylecompressor.com under the software section. An interface cable, Carlyle P/N USB-L, is required to communicate the laptop to the CCM Controller. Once communication is established, the user can configure the CCM for the 06TR/TA 74mm screw compressor.

Connect the USB-Link to the computer and to the controller's **Local Access** port.



Functionality Differences between the CCM and LonCEM module

- The CCM does not have internal CR1/CR2 compressor start contactors to start the compressor.
- A separate 5 vdc power supply will be required for the pressure transducers. The CCM does not have the 5 vdc capability to power the pressure transducers like the LonCEM.
- No suction pressure transducer required. Suction pressure will be a fixed set-point inputted by the user. Should be the same value as the refrigeration rack suction pressure header set-point.
- Supply voltage to power the CCM is 24vac only. All outputs are only 24vac.
- Intermediate relays will be required to be installed between the CCM and the solenoid coils for Vi Valve, Unloader, and liquid injection valve if their voltages are 120vac or 240vac.
- The CCM does not have available outputs to energize the isolation solenoid valves for the oil line, economizer line, and the liquid injection line. The System Controller will have to energize these isolation solenoid valves upon a compressor start.
- The CCM has network capability for Modbus and BacNet. Does not use Echelon.
- Consult the Application Guide 575-012 at www.carlylecompressor.com for setup and installation instructions.