STS 3192–OW Order-Wire Unit

CLEI™ Code: T1PQ9BH1AA

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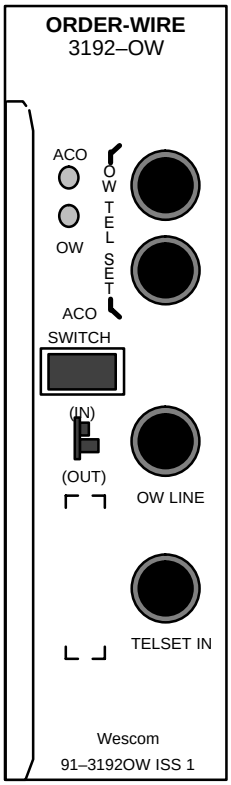

Figure 1. 3192–OW Order-Wire Unit

1. GENERAL

1.1 Document Purpose

This document provides general and installation information for the Charles Industries 3192-OW Order-Wire module, shown in Figure 1.

1.2 Document Status

This document is reprinted to incorporate a general editorial update.

1.3 Equipment Function

The 3192-OW Order-Wire module is a plug-in unit of the Charles Industries STS–3192 System. The 3192–OW provides power to the field order wire facility. Order Wire call initiated from the field can access a local Class 5 line circuit or be accessed locally at the 3192–OW.

Units are shipped in static-protective material to protect static-sensitive devices. Use static-preventive measures for storage and handling.

2. FUNCTIONAL DESCRIPTION

Table 1 describes the 3192–OW front panel functions and the switch function on the PCB. Figure 2 shows a schematic block diagram of the 3192-OW for applications reference.

The 3192–OW provides nominal –48V current to the order wire cable facility, to support order wire pairs having up to 2100 ohms of resistance. The 3192–OW provides a integral battery boost circuit that, when enabled, supports order wire pairs having up to 4300 ohms resistance.

The 3192–OW can provide a 2W interface to a local switch line circuit. This feature allows field order wire calls to be routed to a local dial tone facility.

Order Wire calls can only be initiated from the field. When the 3192–OW detects a field off-hook, it repeats the off-hook to the Class 5 switch line circuit (if wired). The unit will support DTMF or DP addressing to this port.

Order Wire calls from the field can access the 3192–OW locally by going off-hook, then momentarily on-hook for 5 to 15 seconds, then back off-hook. This action will release any connections to the Switch line port, turn on the OW LED, and place a ground on Pin 7 (Order Wire Alarm). This will indicate to local personnel that the a OW call is in process. Local personnel can answer the call by jacking in a 4W Order Wire tel set. This will release the OW alarm and extinguish the OW LED.

Order Wire alarms can also be silenced by operating the front-panel-mounted ACO switch.

The 3192–OW provides external connections which allow several Order Wire units to be multiplied at a location. These connections (pins 1, 3, A, and 4) are multiplied, and allow field Order Wire calls to be accessed from any 3192–OW unit, on the multiplied connection.

The 3192–OW provides a front panel OW LINE jack. This jack provides a 2W monitor access to the OW facility.

The 3192–OW also provides a front panel TEL SET IN jack. A 2W tel set inserted into this jack will break away the OW facility, and access the Order Wire multiple circuit.

3. INSPECTION

Inspect the equipment thoroughly upon delivery. If the equipment has been damaged in transit, immediately report the extent of damage to the transportation company.

Charles Industries equipment is identified by a model and issue number imprinted on the front panel or located elsewhere on the equipment. Each time a major engineering design change is made on the equipment, the issue number is advanced by one number on any subsequent models that are manufactured. Therefore, be sure to include both the model number and its issue number when making inquiries about the equipment.

Each module is shipped in static-protective packaging to prevent electrostatic charges from damaging static-sensitive devices. Use approved static-preventive measures, such as static-conductive wrist straps and a static-dissi-

pative mat, when handling modules outside of their protective packaging. A module intended for future use should be tested as soon as possible and returned to its original protective packaging for storage.

CAUTION

Do not ship or store modules near strong electrostatic, electromagnetic, or magnetic fields, or in a highly radioactive environment. Also, make sure to use the original static-protective packaging for shipping or storage.

4. MOUNTING

The 3192–OW Order-Wire Unit mounts in the first 27 slots of a 23-inch STS shelf or in the first 21 slots of a 19-inch STS shelf.

CAUTION

Installation and removal of modules should be done with care. Do not force a module into place. If excessive resistance is encountered while installing a module, remove the module, and check the card guides and connector to verify proper alignment and the absence of foreign material.

5. INSTALLER CONNECTIONS

All connections to the 3192–OW are made through the shelf. Refer to Section 319–211–200 (Installation And Application) for additional information.

6. OPTIONS

The 3192-OW module contains a 48V Boost slide switch option. Refer to Figure 3 and Table 1.

7. TESTING

Verify 3192-OW Order-Wire module function as described in Table 1.

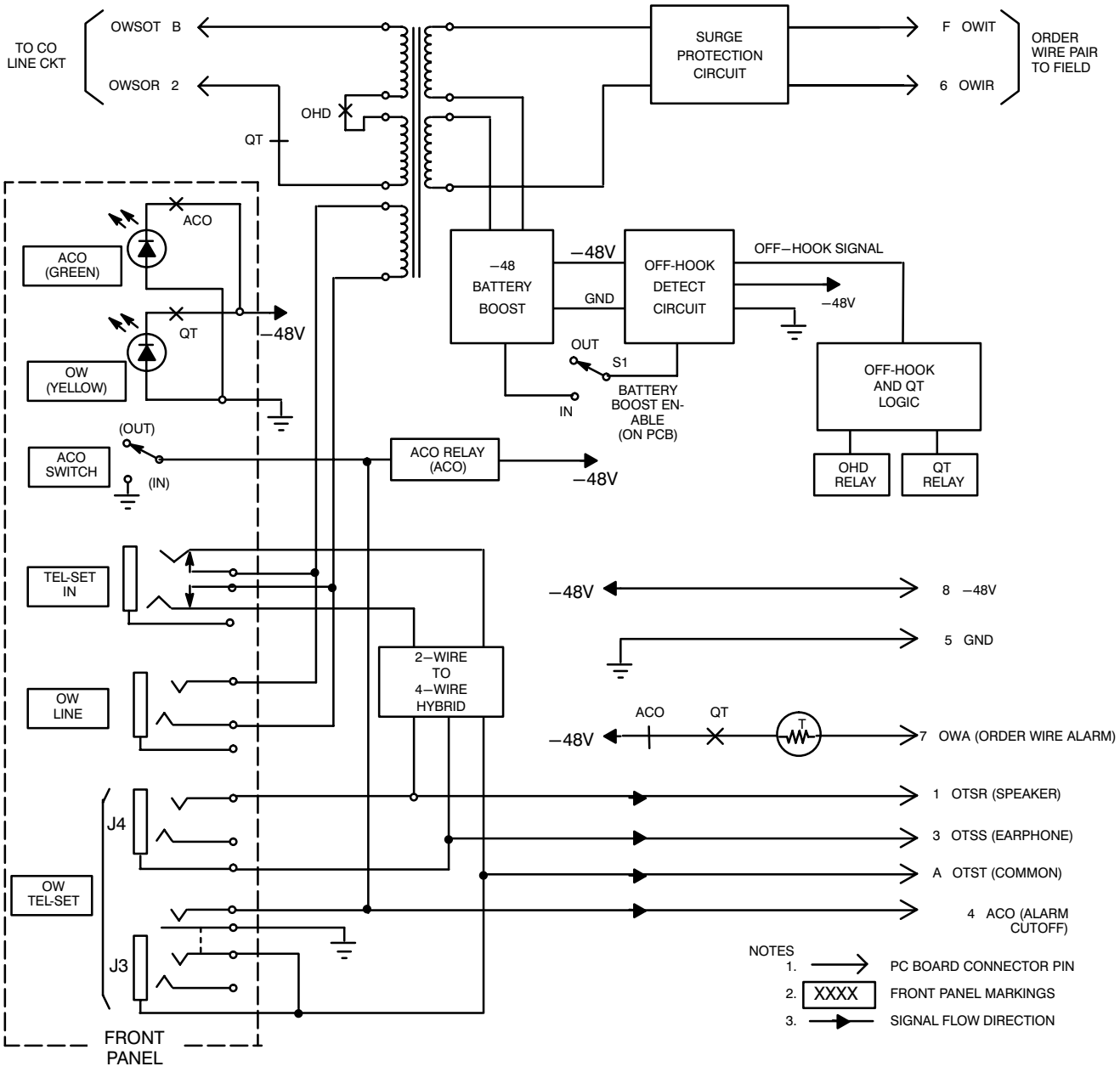

Figure 2. 3192–OW Order Wire Unit Block Diagram

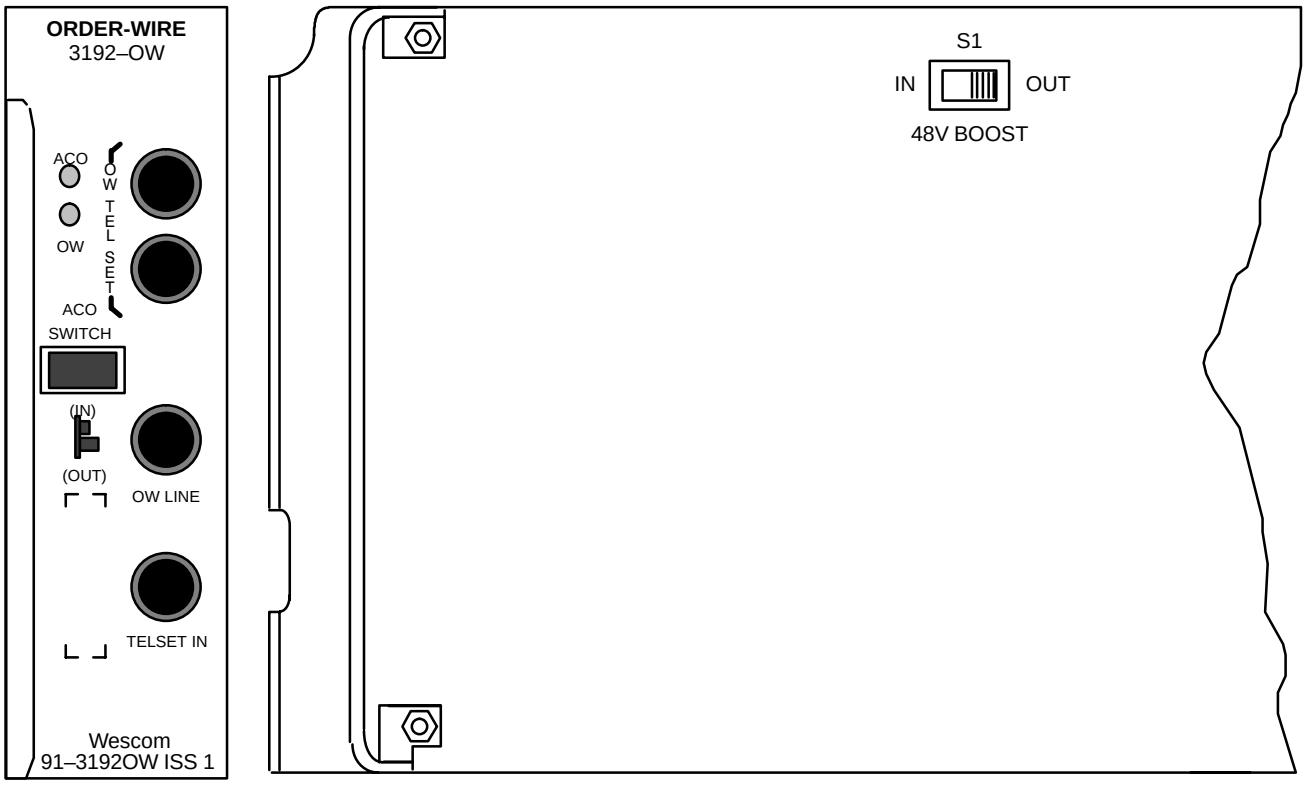

Figure 3. 3192–OW PCB Option Location And Front Panel Components

Table 1. 3192OW Front Panel Components And PCB Switch Option Description

Front Panel Components*	Function
ACO LED (Yellow)	Indicates that alarms from this unit are cutoff and not displayed. ACO is also activated whenever a OW tel set is jacked into this unit so that office alarms are not reported when the OW is in use.
OW LED (Green)	Indicates that an OW call has been initiated from the field requesting a response in the CO. This also activates a CO alarm, if wired.
ACO SWITCH (Push-in, Push-out switch)	IN: ACO (Alarm Cutoff) is active, and OW alarms are not reported. OUT: OWAs (Order Wire Alarms) are reported.
OW TEL-SET Jacks (Dual 310-type)	Provides access to the order wire via a 4W headset.
OW LINE Jack (310-type)	Provides AC (monitor) access to the OW line (2-wire).
TEL-SET IN Jack (310-type)	Provides AC (splitting) access to the telephone set (2-wire). The OW TEL-SET jacks are disconnected from the OW line when this jack is used.
PCB Option*	**Function**
48V BOOST (Switch S1)	IN: Provides 96V to OW pair for loops between 2100 and 4300 ohms. OUT: Provides 48V to OW pair for loops up to 2100 ohms.
*Also refer to Figure 3.	

8. TECHNICAL ASSISTANCE

8.1 Technical Assistance — U.S.

If technical assistance is required, contact Charles Industries' Technical Services Center at:

847–806–8500
847–806–8556 (FAX)
800–607–8500
techserv@charlesindustries.com (e-mail)

8.2 Technical Assistance — Canada

Canadian customers contact:

905–821–7673 (Main Office)
905–821–3280 (FAX)

9. WARRANTY & CUSTOMER SERVICE

9.1 Warranty

Charles Industries, Ltd. offers an industry-leading, 5-year warranty on products manufactured by Charles Industries. Contact your local Sales Representative at the address or telephone numbers below for warranty details. The warranty provisions are subject to change without notice. The terms and conditions applicable to any specific sale of product shall be defined in the resulting sales contract.

Charles Industries, Ltd.
5600 Apollo Drive
Rolling Meadows, Illinois 60008–4049

Telephone: 847–806–6300 (Main Office)
847–806–6231 (FAX)

9.2 Field Repairs (In-Warranty Units)

Field repairs involving the replacement of components within a unit are not recommended and may void the warranty and compatibility with any applicable regulatory or agency requirements. If a unit needs repair, contact Charles Industries, Ltd. for replacement or repair instructions, or follow the *Repair Service Procedure* below.

9.3 Advanced Replacement Service (In-Warranty Units)

Charles Industries, Ltd. offers an "advanced replacement" service if a replacement unit is required as soon as possible. With this service, the unit will be shipped in the fastest manner consistent with the urgency of the situation. In most cases, there are no charges for in-warranty repairs, except for the transportation charges of the unit and for a testing and handling charge for units returned with no trouble found. Upon receipt of the advanced replacement unit, return the out-of-service unit in the carton in which the replacement was shipped, using the preaddressed shipping label provided. Call your customer service representative at the telephone number above for more details.

9.4 Standard Repair and Replacement Service (Both In-Warranty and Out-Of-Warranty Units)

Charles Industries, Ltd. offers a standard repair or exchange service for units either in- or out-of-warranty. With this service, units may be shipped to Charles Industries for either repair and quality testing or exchanged for a replacement unit, as determined by Charles Industries. Follow the *Repair Service Procedure* below to return units and to secure a repair or replacement. A handling charge applies for equipment returned with no trouble found. To obtain more details of this service and a schedule of prices, contact the CI Service Center at 217–932–5288 (FAX 217–932–2943).

Repair Service Procedure

1. Prepare, complete, and enclose a purchase order in the box with the equipment to be returned.

2. Include the following information:

   – Company name and address
   – Contact name and phone number
   – Inventory of equipment being shipped
   – Particulars as to the nature of the failure
   – Return shipping address

3. Ship the equipment, purchase order, and above-listed information, transportation prepaid, to the service center address shown below.

   CI Service Center
   Route 40 East
   Casey, IL 62420–2054

4. Most repaired or replaced units will be returned within 30 or 45 days, depending on the product type and availability of repair parts. Repaired units are warranted for either 90 days from the date of repair or for the remaining unexpired portion of the original warranty, whichever is longer.

10. SPECIFICATIONS

The specifications for the 3192-OW Order–Wire module are as follows:

10.1 Electrical

(a) CURRENT DRAIN: On-hook, 17mA ±5mA; off-hook, 220mA ±40mA; off-hook and quiet mode, 250mA (maximum) ±50mA.

(b) ORDER WIRE CABLE DC RESISTANCE: 4500 ohms of DC cable resistance maximum.

(c) INSERTION LOSS:1dB nominal.

10.2 Physical

See Table 2 for the physical characteristics of the unit.

Table 2. Physical Specifications

Feature	U.S.	Metric
Height	4.75 inches	12.06 centimeters
Width	1.58 inches	3.97 centimeters
Depth	10.5 inches	26.67 centimeters
Weight	23.5 ounces	667 grams
Temperature	–40° to 150°F	–40° to 65°C