SECTION 116643

MODEL 8850 INDOOR SCOREBOARD

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Single-face electronic scoreboard and control console for indoor use.

1.02 REFERENCES

A. Standard for Electric Signs, UL-48, 14th Edition.
B. Standard for Control Centers for Changing Message Type Signs, UL-1433, 4th Edition.
C. Federal Communications Commission Regulation Part 15.
D. National Electric Code.

1.03 SUBMITTALS

A. Scoreboard owner's handbook provides drawings and other information needed for installation, operation, and maintenance of the scoreboard and accessories.

1.04 QUALITY ASSURANCE

A. Source limitation: Obtain all components including scoreboard, control console, data cable, mounting hardware, and other accessories from a single manufacturer.
B. Manufacturer qualifications: Require company specializing in manufacturing electronic scoreboards with a minimum of ten years experience.
C. Adherence to nationally recognized standards.
    1. ETL listed to UL Standards 48 and 1433.
    2. NEC compliant.
    3. FCC compliant.
D. For indoor use only.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Product delivered to installation site unless otherwise specified.
B. Scoreboard and accessories to be stored in a clean, dry environment.
C. Special precautions for the scoreboard face.
    1. The scoreboard face will be protected during shipment by a layer of cardboard or other sheet material. Avoid removing this protective sheet until the installation begins.
    2. Never lay the scoreboard face down or stack other objects on a scoreboard lying on its back.
    3. Avoid sliding objects (like another scoreboard) along the plane of the scoreboard face even if the protective sheet is in place. This can result in LEDs being sheared.

1.06 PROJECT CONDITIONS

    A. Scoreboard and accessories should not be installed until the area has been made weatherproof.
    B. The customer determines location of scoreboard, control console, and other accessories.
    C. The customer is responsible for verifying that the mounting structure is capable of supporting the weight of the scoreboard, additional panel, and other accessories.
    D. The scoreboard location requires one standard grounded 120 VAC electrical outlet.
    E. The control console location requires one standard grounded 120 VAC electrical outlet.

1.07 WARRANTY

    A. Five year limited warranty includes factory labor and material costs for repairing or replacing defective parts. Refer to the warranty document included in the scoreboard owner's handbook for specific information.
    B. Warranty coverage based on the date of manufacture.

1.08 MAINTENANCE

    A. Replacement parts and factory repair options available from manufacturer.
    B. Product support provided by experienced technicians and online documentation available via phone, web, and email at no cost to customer.

PART 2 PRODUCTS

2.01 MANUFACTURER

    A. Electro-Mech Scoreboard Co., 120 Industrial Parkway, Wrightsville, GA 31096.
        1. Phone 800-445-7846.
        2. Fax 478-864-0212.
        3. Email score@electro-mech.com
        4. Click www.electro-mech.com

2.02 SCOREBOARD

    A. General.
        1. Functions and Features: Model 8850 Indoor Scoreboard is designed to present information pertinent to hockey and other indoor sports. Presentation includes:
            a. Four-digit Clock with illuminated colon/decimal indicator that can count up in MM:SS format, count down in MM:SS or SS.T format, or show time of day in HH:MM format. Clock digits are 12 inches tall and made from red LEDs.
            b. Guest and Home Scores to 199. Score digits are 12 inches tall and made from amber LEDs.
            c. Period to 9. The Period digit is 9 inches tall and made from green LEDs.

d. Two sets of three-digit Guest and Home Penalty Clocks with illuminated colon that can count down in M:SS format. Penalty Timer digits are 9 inches tall and made from green LEDs.
    e. Player Number to 99 for each of the four Penalty Clocks. Player Number digits are 9 inches tall and made from red LEDs.
    f. Guest and Home Shots On Goal to 99. Shots digits are 9 inches tall and made from amber LEDs.
    g. Integrated Horn.
    h. Two dedicated 120 VAC outputs for optional goal light indicators.
    i. One data output for daisy chaining additional scoreboards or shot timers.
2. Cabinet Size.
    a. Standard model (with no side ID panels): 12 feet (3662 mm) wide, 5 feet (1529 mm) tall, 6 inches (152 mm) deep.
    b. With optional ID panel on left: 16 feet (4882 mm) wide, 5 feet (1529 mm) tall, 6 inches (152 mm) deep.
    c. With two optional ID panels (left and right): 20 feet (6101 mm), 5 feet (1529 mm) tall, 6 inches (152 mm) deep.
3. Cabinet Weight.
    a. Standard model (with no side ID panels): 215 pounds (98 kg).
    b. With optional ID panel on left: 245 pounds (111 kg).
    c. With two optional ID panels (left and right): 275 pounds (125 kg).

2.03 ACCESSORIES

A. Standard accessories.
    1. Control Console.
        a. Supports all features of Electro-Mech 8000 series hockey scoreboards without the need to enter codes or other information to configure the device.
        b. Provides direct data outputs for up to four scoreboards all synchronized to the data (including the time) generated by the control console. Additional displays may be controlled in synchronization by daisy chaining from the data outputs of scoreboards connected to the control console.
        c. Constructed of a heavy-duty ABS plastic housing holding a 0.1-inch thick keypad panel with stainless steel metal dome switches that provide tactile feedback and are rated for one million actuations.
        d. Requires one standard grounded 120 VAC electrical outlet.
    2. Extension Cable: 10-foot long shielded data cable with male stereo connectors at each end allows control console to be connected to a junction box (or ScoreLink transmitter) at the point of operation and later unplugged for storage.
    3. Junction Box: Provides a point of termination for the data cable with a stereo socket for quick connection to the control console.
    4. Stereo Plug With Pigtail: Provides a connector to be spliced onto the data cable at the scoreboard end.
    5. Mounting hardware: The scoreboard cabinet is shipped with two keyhole plates attached to the top rear frame designed to allow the scoreboard to be suspended from lag bolts mounted in the wall. Two eyebolt mounted in the top of the frame may be

used to lift the scoreboard cabinet and may also provide a permanent attachment points for suspension cables.

B. Optional accessories.
1. Data Cable: A shielded two-conductor cable with a drain line is the typical means of providing a path for data from the control console to the scoreboard.
2. ScoreLink Wireless RF Modem System: This RF communications system may be substituted for the data cable at the time of installation or as a replacement for the cable at any time after the installation. ScoreLink requires a standard electrical outlet for the transmitter at the point of operation and another for the receiver at the scoreboard.
3. ID Panels: This scoreboard may be ordered with an ID panel integrated into the cabinet on the left side or with two integrated panels flanking the scoreboard. An additional panel, shipped as a separate cabinet, may be added along the bottom. These panels may be purchased blank or with simple text, multi-colored text and graphics, or screen-printed processed-color logos applied to their faces.
4. Carrying Case For Control Console: Included with the ScoreLink system, this option is also available for scoreboards with hard-wired data cables.
5. Handheld Clock Start/Stop Control: Provides a hand-held pendant that allows the clock operator to start and stop the Game Clock without touching the control console.
6. Goal Light Indicators: Designed to illuminate whenever a goal is scored. These indicators must attach to receptacles provided on the scoreboard cabinet.
7. Team Name In Place of "HOME".

2.04 FINISH

A. Standard scoreboard faces and digit masks are coated with low gloss black polyester resin paint for maximum contrast and resistance to scratches.
1. Baked on automotive grade low gloss paint in a selection of standard colors is available from the manufacturer for the scoreboard face.
2. Non-standard colors and finishes may be applied to the scoreboard face at the customer's request.
B. Scoreboard framing and back are mill-finished aluminum.
C. Captions and other decorative elements on the face of the scoreboard are vinyl.

2.05 SOURCE QUALITY CONTROL

A. Tests and inspection.
1. Manufacturer requires sub-contracted printed circuit board subassemblies to undergo functional testing at the point of manufacture.
2. Manufacturer inspects incoming components prior to installation in scoreboard and accessories.
3. Manufacturer functionally tests major electrical subcomponents prior to installation in scoreboard and accessories.
4. Manufacturer inspects and tests scoreboards and accessories at full power prior to shipment.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify 120 VAC outlets at scoreboard and control console locations are properly grounded.
B. If data cable is used, verify continuity from scoreboard to control console locations.
C. Verify data cable and AC power cable are not run in the same conduit or wire tray.
D. Verify data cable and AC power cable are secure and run in conduit where they might be exposed to abuse or where local, state, or national codes require.
E. Verify location of scoreboard, junction box (or boxes), and accessories with customer.
F. Test scoreboard and control console by attaching both to power and plugging console output into scoreboard data input prior to hanging scoreboard.

3.02 INSTALLATION

A. Refer to scoreboard owner's handbook for installation instructions.

3.03 PROTECTION

A. The most common sources of damage to scoreboards and accessories are electrical surges running through power or data connections. The usual causes are lightning, power equipment problems (floating neutrals, bad transformers, etc.), and improper connections. To minimize these problems:
    1. Ensure electrical wiring is properly grounded.
    2. Unplug control console from power outlet and from data cable when not in use.
    3. Turn off the breaker to disconnect scoreboard from power when not in use.
    4. Label scoreboard data cable junction box and all connectors near junction box, scoreboard, and accessories so that public address systems and other devices with similar connections are not accidentally plugged into the scoreboard.
B. Avoid loss or damage of control console, extension cable, and other accessories by storing when not in use.

END OF SECTION