

Operator's Manual

ASCO® 7000 Series MTS Manually-Operated Non-Automatic Transfer Switches 30 through 4000 amps



1200 amp. size

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Note: Refer to the outline and wiring drawings provided with your 7000 Series MTS for all installation and connection details and accessories.

An experienced licensed electrician must install the MTS.

Rating Label

Each MTS Transfer Switch contains a rating label to define the loads and fault circuit withstand/closing ratings. Refer to the label on the Transfer Switch for specific values.

⚠ WARNING

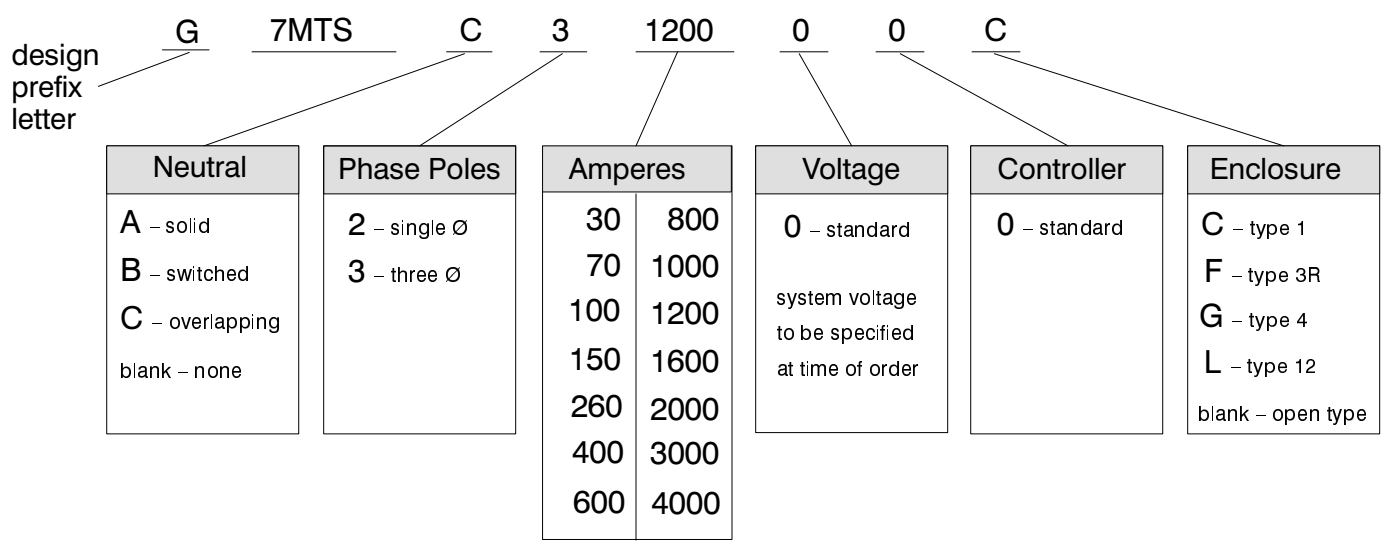
Do not exceed the values on the rating label. Exceeding the rating can cause personal injury or serious equipment damage.

Nameplate

The Transfer Switch nameplate includes data for each specific 7000 Series MTS. Use the switch only within the limits shown on this nameplate. A typical Catalog Number is shown below with its elements explained.

Catalog Number Identification

Typical catalog no. for G-design, overlapping neutral, 3 pole, 1200 ampere, MTS in Type 1 enclosure:



1 – INSTALLATION

ASCO Series 7000 7MTS Manually–Operated Non–Automatic Transfer Switches consist of a transfer switch with a quick–make–quick–break manual operator, source available indicator lights, and transfer switch position indicator lights. Installation requires mounting and connection of service cables.

Supporting Foundation

The supporting foundation for the enclosure must be level and straight. Refer to the applicable enclosure outline drawing included with the 7MTS for all mounting details including door opening space.

If bottom cable entry is used, the foundation must be prepared so that the conduit stubs are located correctly. Refer to the enclosure outline drawing for specified area and location. Provide cable bending space and clearance to live metal parts. When a concrete floor is poured, use interlocking conduit spacer caps or a wood or metal template to maintain proper conduit alignment.

⚠ CAUTION

To prevent malfunction or shortened life for the transfer switch protect it from construction grit and metal chips.

Mounting

Refer to the applicable enclosure or open–type outline and mounting drawing furnished with this transfer switch and mount the 7MTS according to details and instructions shown on diagram.

Mount the 7MTS vertically to a rigid supporting structure. Level all mounting points by using flat washers behind the holes to avoid forced distortion of the transfer switch. It is not necessary to remove the barriers from the transfer switch. If you do remove them, however, reinstall them carefully.

Auxiliary Cable Boxes for 1000 & 1200 amp.

For 1000 and 1200 amp. sizes, auxiliary cable boxes are required for all (normal, emergency, & load) bottom or top entry. Be sure to install auxiliary cable boxes if both service and load cables are entering through the top or bottom of enclosure. Consult ASCO Power Technologies.

⚠ CAUTION

Be sure that the three cable spacers are installed as shown on 150 amp. transfer switches.

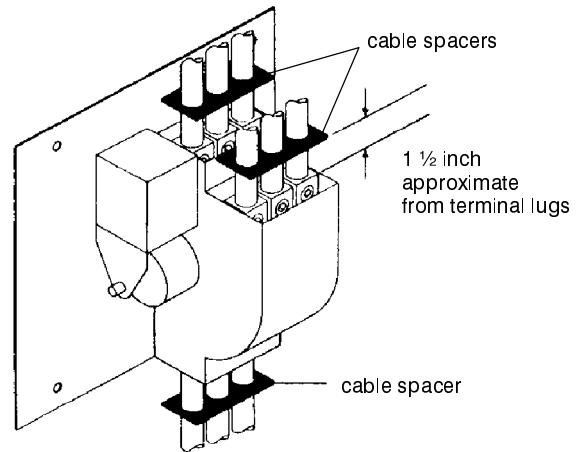


Figure 1-1. Cable spacers for 150 amp. switches.

⚠ WARNING

Be sure that the insulator piece is installed behind 260 and 400 amp. transfer switches.

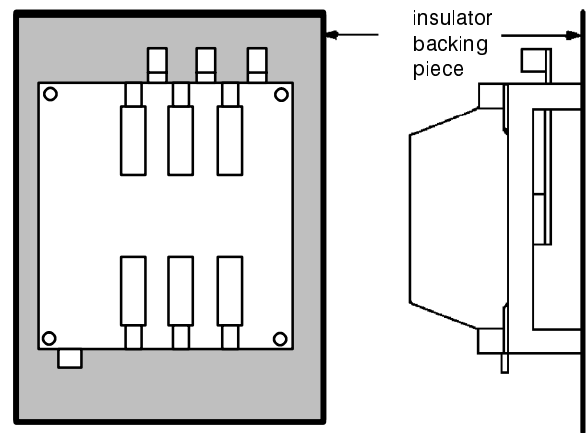


Figure 1-2. Insulator for 260 and 400 amp. switches.

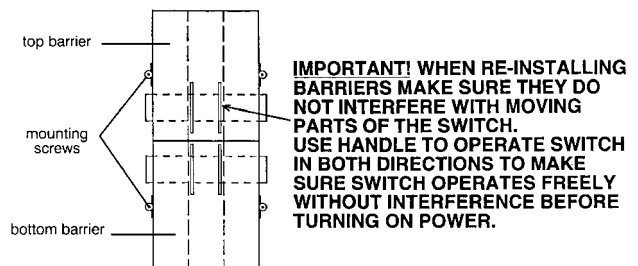
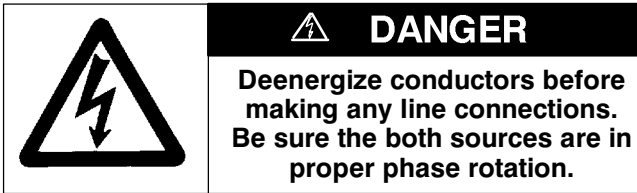


Figure 1-3. Barriers on 600 and 800 amp. switches.

2 – CONNECTIONS



Testing Power Conductors

Do not connect the power conductors to the 7MTS transfer switch until they are tested. Installing power cables in conduit, cable troughs and ceiling-suspended hangers often requires considerable force. The pulling of cables can damage insulation and stretch or break the conductor's strands. For this reason, after the cables are pulled into position, and before they are connected they should be tested to verify that they are not defective or have been damaged during installation.

Connecting Power Conductors

After the power cables have been tested, connect them to the appropriate terminal lugs on the Transfer Switch as shown on the wiring diagram provided with this 7MTS. Make sure the lugs provided are suitable for use with the cables being installed. Standard terminal lugs are solderless screw type and will accept the wire sizes listed on the drawings provided with the 7MTS. Be careful when stripping insulation from the cables; avoid nicking or ringing the conductor. Remove surface oxides from cables by cleaning with a wire brush. When aluminum cable is used, apply joint compound to conductors. Tighten cable lugs to the torque specified on rating label.

Bus Connections

Use grade 5 hardware to connect bus to appropriate terminal plates on the Transfer Switch. Wipe off the bus surfaces before they are joined. If the bus is dirty, gently clean the surfaces with a non-flammable solvent. Avoid touching the cleaned surfaces.



Use grade 5 hardware and tighten the bolted joints to the torque specified in Table 2-1.

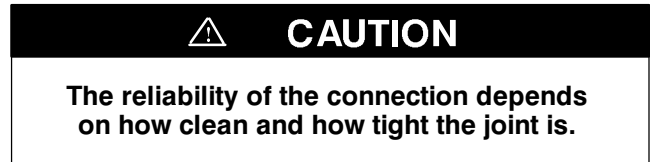


Table 2-1. Tightening torque values for bolted joints (Grade 5 hardware).

Bolt Diameter in inches	Tightening Torque in foot pounds
1/4	7
5/16	12
3/8	20
1/2	50
5/8	95
3/4	155

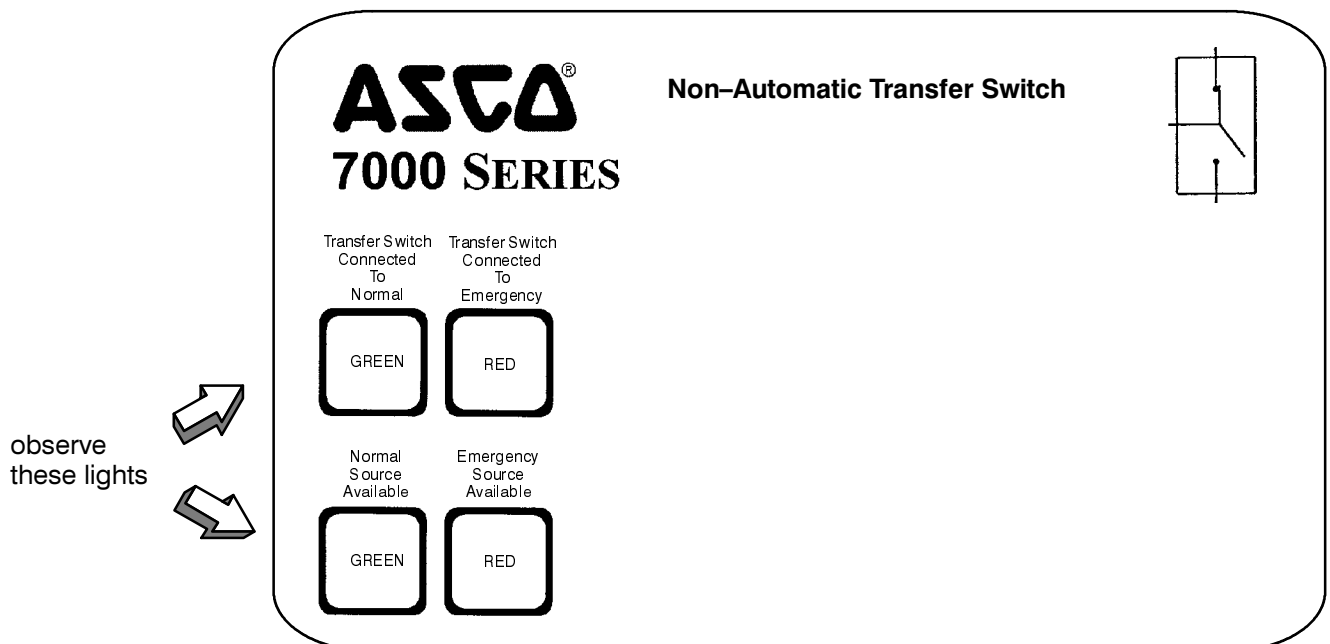


Figure 2-1. Switch position and source availability indicating lights.

3 – MANUAL OPERATION

⚠ WARNING

Close the transfer switch enclosure door and tighten the screws before you use the manual operating handle.

Manual Operation Procedure

Each 7MTS has an external manual operating handle on the front or left side of the enclosure. Observe the switch position indicator lights on the door.

1. Select the appropriate figure according to the switch amp. size for your 7MTS and follow the directions for using the manual operating handle.
2. Move the manual operating handle as shown in selected figure to transfer the load to the opposite source. Observe the switch position indicator lights.

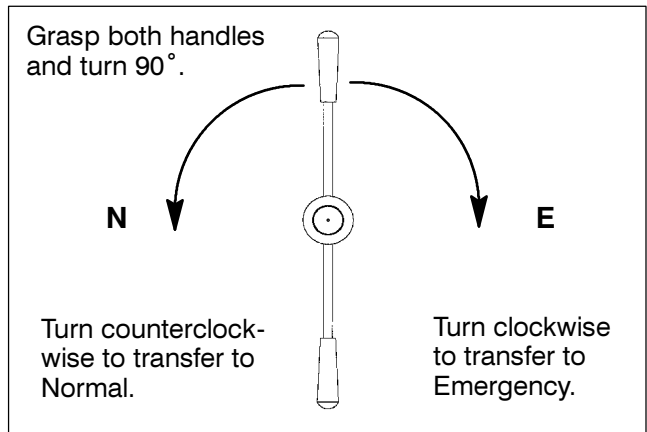


Figure 3-2. Manual operating handle on F-design 600 and 800 amp. sizes (front).

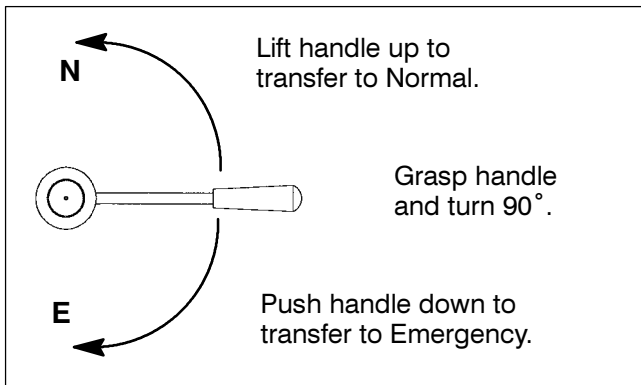


Figure 3-1. Manual operating handle on 30, 70, 100, 150, 260, and 400 amp. sizes (left side).

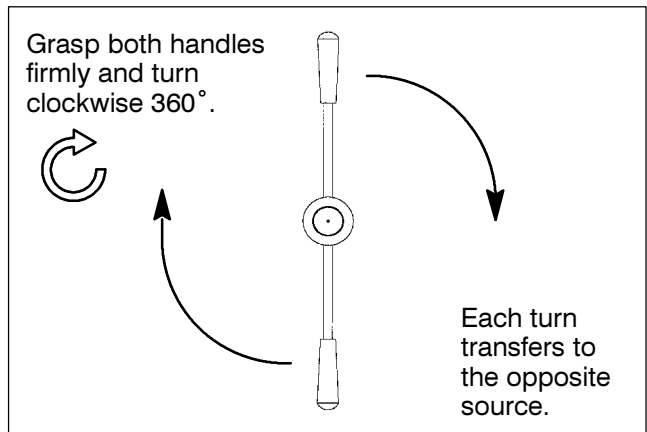


Figure 3-3. Manual operating handle on F-design 3000 and 4000 amp. sizes (front).

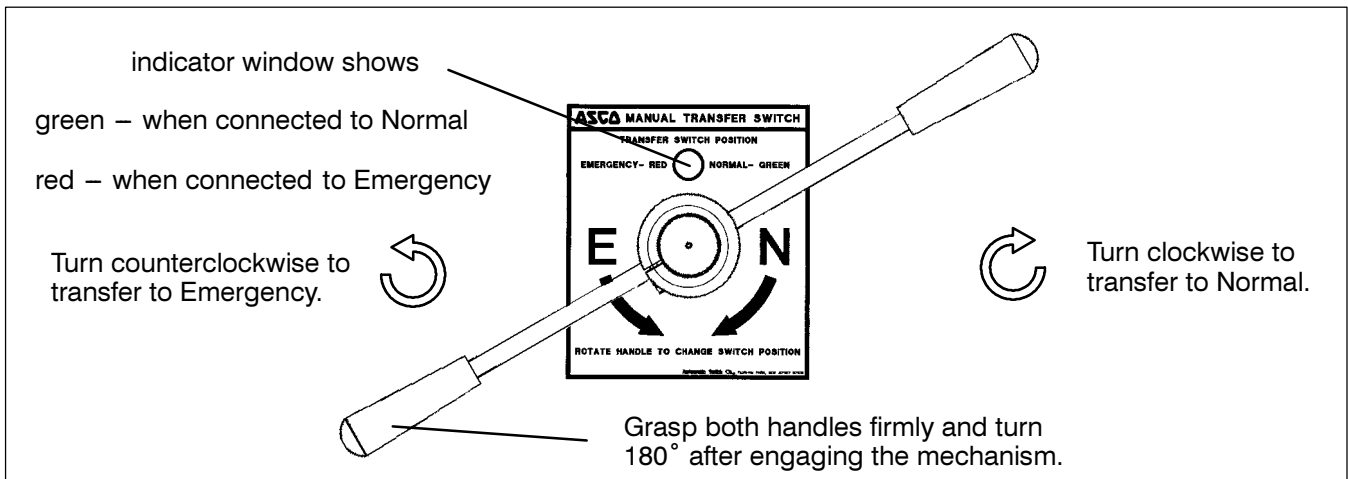


Figure 3-4. Manual operating handle on G-design 1000, 1200, 1600, 2000, and 3000 amp. sizes (front).