ATC-900 Transfer Switch

Utility - Generator Transfer Switch

Source 1 is available

Close Source 1
(Momentarily energize K3)

Source 1 is powering the load

Source 1 becomes unavailable
(or Engine Test, Plant Exerciser,
Go To Emergency)

Time Delay for Engine Starting
timer times out

Time Delay Normal to
Emergency - A time
delay to ensure the
utility has stabilized
before completing a
retransfer.

Send "Engine Start" signal
(Energize Gen Start relay)

Time Delay Emergency to Normal
timer times out

Send Pretransfer signal.
Time delay for Pretransfer times out.
(if Pretransfer enabled)

Is Source 1 available yet?

YES

Source 1 becomes unavailable
(or Engine Test, Plant Exerciser,
Go To Emergency)

Time Delay for Engine Starting
timer times out

Time Delay Normal to
Emergency - A time
delay to ensure the
utility has stabilized
before completing a
retransfer.

Send "Engine Start" signal
(Energize Gen Start relay)

Time Delay Emergency to Normal
timer times out

Send Pretransfer signal.
Time delay for Pretransfer times out.
(if Pretransfer enabled)

Open Source 2 (Energize K1)

Time Delay in Neutral timer times out
(if Option 32A is enabled)

Close Source 1 breaker
(Momentarily energize K2)

Source 1 is powering the load

Source 1 becomes unavailable
(or Engine Test, Plant Exerciser,
Go To Emergency)

Time Delay for Engine Starting
timer times out

Time Delay Normal to
Emergency - A time
delay to ensure the
utility has stabilized
before completing a
retransfer.

Send "Engine Start" signal
(Energize Gen Start relay)

Time Delay Emergency to Normal
timer times out

Send Pretransfer signal.
Time delay for Pretransfer times out.
(if Pretransfer enabled)

Open Source 2 (Energize K1)

Time Delay in Neutral timer times out
(if Option 32A is enabled)

Close Source 1 breaker
(Momentarily energize K2)

Source 1 is powering the load

Source 1 becomes unavailable
(or Engine Test, Plant Exerciser,
Go To Emergency)

Time Delay for Engine Starting
timer times out

Time Delay Normal to
Emergency - A time
delay to ensure the
utility has stabilized
before completing a
retransfer.

Send "Engine Start" signal
(Energize Gen Start relay)

Time Delay Emergency to Normal
timer times out

Send Pretransfer signal.
Time delay for Pretransfer times out.
(if Pretransfer enabled)

Open Source 2 (Energize K1)

Time Delay in Neutral timer times out
(if Option 32A is enabled)

Close Source 1 breaker
(Momentarily energize K2)

Source 1 is powering the load

Source 1 becomes unavailable
(or Engine Test, Plant Exerciser,
Go To Emergency)

Time Delay for Engine Starting
timer times out

Time Delay Normal to
Emergency - A time
delay to ensure the
utility has stabilized
before completing a
retransfer.

Send "Engine Start" signal
(Energize Gen Start relay)

Time Delay Emergency to Normal
timer times out

Send Pretransfer signal.
Time delay for Pretransfer times out.
(if Pretransfer enabled)

Open Source 2 (Energize K1)

Time Delay in Neutral timer times out
(if Option 32A is enabled)

Close Source 1 breaker
(Momentarily energize K2)

Source 1 is powering the load

Source 1 becomes unavailable
(or Engine Test, Plant Exerciser,
Go To Emergency)

Time Delay for Engine Starting
timer times out

Time Delay Normal to
Emergency - A time
delay to ensure the
utility has stabilized
before completing a
retransfer.

Send "Engine Start" signal
(Energize Gen Start relay)

Time Delay Emergency to Normal
timer times out

Send Pretransfer signal.
Time delay for Pretransfer times out.
(if Pretransfer enabled)

Open Source 2 (Energize K1)

Time Delay in Neutral timer times out
(if Option 32A is enabled)

Close Source 1 breaker
(Momentarily energize K2)

Source 1 is powering the load

Time Delay for Engine Cooldown
timer times out

Source 2 is powering the load

Time Delay in Neutral - Pause in the
off position to allow
regenerative voltages
to decay before
completing transfer.

Pretransfer Signal - Provides a signal
prior to transfer to
disconnect select loads
during the transfer
process.

Time Delay for Engine
Starting - Provides a
time delay to ensure
there is a utility outage
and not just a 1 or 2
second blip.

Time Delay Normal to
Emergency - Provides a
time delay to allow
the back up source to
come up to speed and
stabilize before
transferring.

Note: These flowcharts refer to “breaker” or “contactor.”